Human sec Human PRO Novel hum Human PRO Human PRO

Homo s Novel

Нишап Novel Human Human

Human

Human Human

Human Human

Human Human Human

Novel

Novel

Human

Novel

Novel Human

Human Human Human Human Human Human Novel Human Human

Novel Novel

Human Human

```
Human PRO
Human PRO
Human PRO
Human PRO
Human PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human sec
Human sec
Novel hum
Novel hum
                                                                                                                                                                                                                                                                                                                                                                                                                                                        sec
hum
sec
PRO
PRO
PRO
PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sec
                                                                                                                                                                                                                                                                                                                                                                                              Aay66748 Membrane-
                                               1, 2004, 08:19:45 ; Search time 55 Seconds
   (without alignments)
   462.350 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel
                                                                                                   .....DSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                       Aab50922
Aab65271
Abu59086
Abu59164
Abu357676
Abu13977
Abu13977
Abu13977
Abu2562
Abu59887
Abu59887
Abu59887
Abu59887
Abu59887
Abu59887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Abu92226 1
Abu10932 1
Abu81684 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Abu59017
Abu92395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Abu59460
Abu67082
                                                                                                                                                           1586107
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                          1586107 segs, 282547505 residues
                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                  Minimum Match 0%
Maximum Match 100%
Listing first 206 summaries
                                  protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                              AAB65271
ABU58086
ABU59164
ABU82676
ABO17852
ABU60595
ABU13977
ABU13977
ABU72562
ABU72562
                                                                                                                                                                                                                                                                                                                                                                                             AAY66748
AAB33469
                                                                                                                                                                                                                                                                                                                                                                                                             AAU12408
AAB50922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU59887
ABU59311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AB025077
ABU59017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABU10932
ABU81684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AB026008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU67082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU92226
                                                                                                 1 MTFFLSLLLLUCEAIWRSN..
                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                            geneseqp2002s:*
geneseqp2003as:*
geneseqp2003bs:*
geneseqp2004s:*
                                                                                                                                                                                                                                           geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
geneseqp2001s:*
                                                                                                                                                                                                                                    Geneseq_29Jan04:*
                                                                                  US-09-989-293A-377
                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                    Query
Match Length
                                                  June
                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing:
                                                                                 Title:
Perfect score:
                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                             OM protein
                                                                                                  Sequence:
                                                                                                                                          Searched:
                                                                                                                                                                                                                                    Database
                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                   Result
No.
```

Novel

Human Human

Human Human Human Human

Human sec Homo sapi Human PRO Human PRO Human PRO Human PRO Novel hum Human PRO

hum

Novel

Novel Novel Human Human

PRO PRO sec

> Human Human

Human Human

Novel

Human Novel

Human Human Human Human

172 462 100.0 90 7 ADE22347 Ade22347 Human PRO 173 462 100.0 90 7 ADE72347 Add79571 Human PRO 174 462 100.0 90 7 ADE42107 Add79571 Human PRO 175 462 100.0 90 7 ADE17924 Add2107 Human PRO 176 462 100.0 90 7 ADE32519 Add22056 Human PRO 177 462 100.0 90 7 ADE34071 Add23519 Novel hum 179 462 100.0 90 7 ADE34071 Add3101 Human PRO 180 462 100.0 90 7 ADE34071 Add3101 Human PRO 181 462 100.0 90 7 ADE31580 Add3101 Human PRO 181 462 100.0 90 7 ADE31580 Add3106 Human PRO 182 100.0 90 7 ADE31580 Add3166 Human PRO 183 462 100.0 90 7 ADE31580 Add3166 Human PRO 184 462 100.0 90 7 ADE31580 Add3166 Human PRO 185 Add3167 Human PRO 186 462 100.0 90 7 ADE31580 Add3167 Human PRO 187 462 100.0 90 7 ADE31580 Add3167 Human PRO	462 100.0 90 7 ADE19028 Ade19028 462 100.0 90 7 ADE43224 Ad464324 462 100.0 90 7 ADD96013 Ad466013 462 100.0 90 7 ADE22899 Ade222899	462 100.0 90 7 ADD79017 Add79017 Human 462 100.0 90 7 ADB26367 Ade26367 Novel 462 100.0 90 7 ADB32967 Ade32967 Novel	462 100.0 90 7 AD342659 Ad642659 Human 462 100.0 90 7 ADD80675 Ad680675 Human 462 100.0 90 7 ADD89703 Add89703 Add89703 Human	462 100.0 90 7 ADS40987 Ade40987 Human 462 100.0 90 7 ADS64786 Ade64786 Human 462 100.0 90 8 ADC81211 Ade64786 Human	462 100.0 90 8 ADD76659 Add76659 Human 462 100.0 90 8 ADD88023 Add88023 Human	462 100.0 90 8 ADD86427 Add86427 Human 462 100.0 90 8 ADD75875 Ade75875 Human 462 100.0 90 8 ADD75875 Ade75875 Human	452 100.0 90 B ADE24646 Ade24603 Human 462 100.0 90 B ADE24646 Ade24646 Ade24646 Ade24646 Ade24646 Ade24646 Ade24646 Ade24646	462 100.0 90 8 ADD87471 Add87471 Human 462 100.0 90 8 ADB89337 Ad889337 Human 462 100.0 90 8 ADB89337 Ad889337 Human	462 100.0 90 8 ADE885 AGE89785 AGE895785 FUMENT 247.5 53.6 222 4 AAU19838 AAN19838 AAN19838	ALIGNMENTS	DROTT: 1	76674 AA	AA AAY66748; XX	DT 05-APR-2000 (first entry)		KW Membrane-bound polypeptide; PRO polypeptide; LDL receptor; TIE ligand; KW pharmaceutical; receptor immunoadhesin; gene mapping.	OS Homo sapiens.	PN W09963088-A2. XX	PD 09-DEC-1999. XX	0	02-JUN-1998; 02-JUN-1998;	02-JUN-1998; 03-JUN-1998;	04-JUN-1998; 04-JUN-1998; 04-JUN-1998;	04-JUN-1998;	PR 04-UUN-1998; 98US-0088032P. PR 04-UUN-1998; 98US-0088326P. PR 05-UUN-1998; 98US-008816P.	
Adb23729 Human PRO Ada92451 Novel hum Adb15514 Human PRO Adb38766 Novel hum Adb663876 Human PRO Adb38214 Novel hum Adb80498 Human PRO Adb9769 Human PRO Adb9769 Human PRO Adb39599 Novel hum	Novel Human Novel Human	Human Human Fuman	Novel Human	Human Human Human	Human Human	Novel Novel	Novel Novel	Novel Novel Human	Novel	Novel Novel	Novel Novel	Novel Juman	fuman fuman	Novel Novel	fuman Novel	fuman fuman Jovel	lovel	fuman fuman	lovel	[uman love]	tuman tuman	luman	luman Fovel Tuman	uman	ovel ovel	
90 7 ADB23729 90 7 ADB32451 90 7 ADB3514 90 7 ADB38766 90 7 ADB96385 90 7 ADB866686 90 7 ADB89766 90 7 ADB89766 90 7 ADB97969			L L L			7						~ ~ ~	7	7	~ ~ 1		7	7	7	r r 1				7	~ ~ ~	

ന

-00088820 -0008821 -0008821 -0008822 -0008873 -0008873 -0008874 -00088874 -00088874 -00088874 -00088874 -00088874 -000888874 -000888874	0089999000090999900009099990000999900009999	0.00904.45
ක් ක ත ක ක ක ක ක ක ක ක ක ක කි කි කි කි කි ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.ඉ.	\(\frac{1}{2}\) \(\frac{1}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \	
		78 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	11111111111111111111111111111111111111	4 4 4 4 4 4 4 4 4 6 6 7 6 7 6 7 6 7 6 7
## ## ## ## ## ## ## ## ## ## ## ## ##	X X X X X X X X X X X X X X X X X X X	¥ # # # # # # # # # # # # # # # # # # #

```
The invention provides membrane-bound PRO polypeptides and polymucleotides encoding them. The PRO sequences of the invention were identified based on extracellular domain homology screening. The PRO sequences have homology with proteins including LDL receptors, TIE ligands and various enzymes. The membrane-bound proteins and receptor molecules are useful as pharmaceutical and diagnostic agents. Receptor immunoadhesins, for instance, can be used as therapeutic agents to block receptor-ligand interactions. The membrane-bound proteins can also be employed for screening of potential peptide or small molecule inhibitors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Membrane-bound proteins and related nucleotide sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker K, Chen J, Goddard A, Gurney AL, Smith V, Wood WI, Yuan J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 12; Fig 272; 822pp; English.
 98US-0091673P
98US-0092182P
98US-0092182P
98US-0092182P
98US-0094651P
98US-0094651P
98US-0095310P
98US-0095310P
98US-0095312P
98US-0095312P
98US-009531P
98US-009531P
98US-009531P
98US-009531P
98US-009531P
98US-009531P
98US-009531P
98US-009694P
98US-009694P
98US-009694P
98US-009694P
98US-009694P
98US-009694P
98US-009691P
98US-009699P
98US-009799P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-072883/06.
N-PSDB; AAZ65094.
02-JUL-1998,
07-JUL-1998,
09-JUL-1998,
10-JUL-1998,
20-JUL-1998,
30-JUL-1998,
04-AUG-1998,
04-AUG-1998,
04-AUG-1998,
04-AUG-1998,
10-AUG-1998,
10-AUG-1998,
10-AUG-1998,
                                                                                                                                                                                                  12-AVG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
17-ANG-1998;
                                                                                                                                                                                                                                                                                                        17-AUG-1998;
18-AUG-1998;
18-AUG-1998;
                                                                                                                                                                              11-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                           26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                              26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .6-SEP-1998;
```

```
of the relevant receptor/ligand interaction. The PRO encoding sequences are useful as hybridization probes, in chromosome and gene mapping and in the generation of antisense RNA and DNA. PRO nucleic acid sequences will also be useful for the preparation of PRO polypeptides, especially by recombinant techniques
                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dermatological, antiarthritic, antitheumatic; immunosuppressive; haemostatic; antithyroid; antidabetic; nootropic; neuroprotective; antiatheracic; systemic laptematic; systemic laptematory myopathy; systemic solerosis; sarcoidosis; idiopathic inflammatory myopathy; Sjogren's syntome; thyroiditis; systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus; demyelinating disease; hepatobiliary disease; Whipple's disease; demyelinating disease; gluten-sensitive enteropathy; autoimmune disease; immune-mediated skin disease; immune-mediated skin disease; immune-mediated skin disease; allergic disease; graft rejection; graft-versus-host-disease.
                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                      1 MTFFLSLLLLLUCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cardiant;
                                                                                                                                                                                                                   ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; immune related disease; diagnosis; antiinflammatory;
                                                                                                                                                                      100.0%; Score 462; DB 3; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                               Indels
                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human PRO1159 protein UNQ589 SEQ ID NO:273.
                                                                                                                                                                                                                                                                                                                                      61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB33469 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0128849P.
99WO-US008615.
99US-0131445P.
99US-01342871P.
99US-0134287P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0123618P.
99US-0123957P.
99US-0125775P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0141037P.
99US-0144758P.
99US-0145698P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US021090.
99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-MAR-2000; 2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0146222P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US020594
99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                  Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                               Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200053758-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-APR-1999;
04-MAY-1999;
14-MAY-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-APR-1999
20-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-JUL-1999
26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB33469;
                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
AAB33469
    88888888
                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                           qq
```

```
be used in the treatment of immune related diseases. The human PRO
Droteins, anti-PRO antibodies, agonists and antagonists are useful for
treating and diagnosing immune related disorders. The disorders are
clected from diagnosing immune related disorders. The disorders are
clected from systemic lupus erythematosus, rheumatoid arthritis,
csteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
systemic sclearosis, disopathic inflammatory myopathies, Sigoren's
syndrome, systemic vasculitis, earcoidosis, autoimmune haemolytic
anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
immune-mediated renal disease, demyellinating diseases of the central and
peripheral nervous systems, hepatobiliary diseases, inflammatory bowel
disease, gluten-sensitive enteropathy and Whipple's disease, autoimmune
cor immune-mediated skin diseases, allergic diseases, immunological
diseases of the lung, and transplantation associated diseases including
carft rejection and graft-versus-host-disease. AAC5837 to AAC58878
represent PKR primers and hybridisation probes used in the isolation of
human PRO sequences. AAC58579 to AAC58642 and AAB33477
represent human PRO polymucleotide and protein sequences given in the
exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sixty four PRO polypeptides, useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosis, rheumatoid arthritis, osteoarthritis, thyroiditis and diabetes mellitus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes sixty four human PRO proteins which can
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hebert C, Henzel W;
Kabakoff RC, Lu Y, Pan J, Pennica D, Shelton DL, Smith V;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Yan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 462; DB 3; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 33; Fig 112; 309pp; English.
                                                                                                                                                                          02-DEC-1999; 99WO-US028665.
16-DEC-1999; 99WO-US030095.
20-DEC-1999; 99WO-US031059.
30-DEC-1999; 99WO-US031274.
06-JAN-2000; 2000WO-US000219.
06-JAN-2000; 2000WO-US000277.
                                                                              99WO-US028409.
                                                                                                                                           8551.
                                                                                                                     99WO-US028634
                                                                                                                                                            99WO-US028564
99WO-US028565
                                                                                                                                                                                                                                                                                                                  11-FEB-2000; 2000WO-US003555
18-FEB-2000; 2000WO-US004341
18-FEB-2000; 2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity 100.0%;
90; Conservative C
                                                                                                                                                                                                                                                                                                                                                                         22-FEB-2000; 2000WO-US004414
                                                                                                                                         99WO-US02
                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-572271/53.
N-PSDB; AAC58634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sest Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 90 AA;
05-OCT-1999;
29-OCT-1999;
29-NOV-1999;
30-NOV-1999;
                                                                           30-NOV-1999;
01-DEC-1999;
01-DEC-1999;
                                                                                                                                     02-DEC-1999
02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

09 09

RESULT 3

```
Isolated , secretory and transmembrane PRO polypeptide used to detect other PRO polypeptides, link bioactive molecules to cells expressing PRO polypeptides, and detect the presence of mammalian tumors e.g. lung,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-NOV-2000; 2000WO-US030873
                                                                                         24-OCT-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-408281/43.
N-PSDB; AAS21480.
                                                                                                                                                                                                                                                                                                                                                         WO200140466-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -FEB-2000;
-MAR-2000;
-MAR-2000;
-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                      07-JUN-2001
                                            AAU12408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Smith V,
THE STATE OF THE S
```

```
AMU12172-AAU12446 represent novel human secretory and transmembrane PRO polypeptides. The PRO polypeptides are useful to detect other PRO CC polypeptides, to link bicactive molecules to cells expressing PRO polypeptides, to adulate biological activities of cells expressing PRO polypeptides, and to detect the presence of mammalian lung, colon, breast, prostate, rectal, cervical or liver tumours by comparing PRO polypeptide expression in a cell sample to that in a control sample. Some of the 275 sequences are also useful to stimulate the release of tumour of the 275 sequences are also useful to stimulate the release of tumour differentiation of chondrocytes, the proliferation or gene expression in pericyte cells, the release of proteoglycans from cartilage, the proliferation of inner ear utricular supporting cells or of T-color proliferation of inner ear utricular supporting cells or of T-color proliferation of inner ear utricular supporting cells or of T-color proliferation of inner ear utricular supporting cells or of T-color proliferation of inner ear utricular supporting cells or of T-color proliferation of inner ear utricular supporting cells or of T-color proliferation of endothelial cells. Some of the PRO colored my modulate glucose or free fatty acid uptake by skeletal muscle cells or by adipocytes; or inhibit binding of A-peptide to factor viral. The PRO polypeptides can be used in assays to identify molecules involved in binding interactions. The polymucleotides encoding PRO polypeptides can be used to generate probes, antisense RNA/DNA, cor tansgenic or knock out animals and can be used in gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human, PRO, antiinflammatory; dermatological; antiarthritic; antiirheumatic; cardiant; antianaemic; immunosuppressive; natithyroid; antidabetic; nootropic; neuroproceetive; hepatotropic; virucide; antiallergic; antiasthmatic; immune related disorder; hepatobiliary disease; autoimmune disease; allergy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 462; DB 4; Length 90; 100.0%; Pred. No. 9.8e-49; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                               Claim 12; Fig 474; 813pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB50922 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US012252.
99US-0144732P.
99US-0144758P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US021090.
99WO-US021547.
99US-0162506P.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0146222P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US015264
         breast, prostate, cervical.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human PRO1159 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200073452-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Simil
Matches 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-1999;
20-JUL-1999;
20-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-JUL-1999;
01-SEP-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB50922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB50922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human secretory and transmembrane; PRO; mammalian; cancer; lung; breast; profetate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte; A-peptide; factor VIIA; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                Human PRO1159 polypeptide sequence.
AAU12408 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028565.
99US-0170262P.
99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US030911.
99WO-US030999.
99WO-US031243.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004341.
2000WO-US004342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004914.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US003565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US005601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US005841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US006884.
                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beresini M,
I ME, Goddard A
Stewart TA, T
```

ò

Gaps

9

90

15-SEP-1999; 29-OCT-1999; 30-NOV-1999

```
Thirty three nucleic acids encoding PRO polypeptides which are useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosis, rheumatoid arthritis, osteoarthritis, thyroiditis and diabetes mellitus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 58; Fig 42; 218pp; English.
                   99WO-US028551
99WO-US028565
                                                                                              2000WO-US000219
                                                                                                                                                                                                           2000WO-US004914
                                                                                                                                                                                                                             2000WO-US005604
2000WO-US005601
                                                                                                                                                                                                                                                                                03-MAR-2000; 2000US-0187202P
15-MAR-2000; 2000WO-US006884
20-MAR-2000; 2000WO-US007377
                                                         99US-0170262P
                                                                                                                                  2000WO-US003565
                                                                                                                                                    2000WO-US004341
                                                                                                                                                                      2000WO-US004342
                                                                                                                                                                                         2000WO-US004414
                                                                                                                                                                                                                                                                2000WO-US005841
                                                                                                                                                                                                                                                                                                                                          21-MAR-2000; 2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                             2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                            Ashkenazi AJ, Banc.
The Mod MI;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                       GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-025253/03.
N-PSDB; AAC91481.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 90 AA;
                                                     09-DEC-1999;
20-DAN-2009;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                             01-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                           30-MAR-2000;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
```

The present sequence is one of thirty three novel PRO polypeptides. The PRO polypeptides, anti-PRO antibodies, agoniets and antagonists are useful for treating and diagnosing immune related disorders such as systemic lupus erythematosus, rhematoid arthritis, osteoarthritis, osteoarthritis, osteoarthritis, diabent inflammatory myopathies, Sjogren's syndreme, systemic climital manacory myopathies, Sjogren's syndreme, systemic climital manacory myopathies, Sjogren's syndreme, systemic climital archaelist, autoimmune haemolytic anaemia, autoimmune chromocytopaenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, demyelinating diseases of the central and peripheral nervous systems (such as multiple sclerosis, idiopathic demyelinating polymeuropathy), hepatobiliary diseases (such as multiple sclerosis, idiopathic demyelinating polymeuropathy), hepatobiliary diseases (such as myelinating polymeuropathy), hepatobiliary diseases (such as inflammatory bowel disease, gluten-sensitive enteropathy and Whipple's cirrhosis, granulomatous hepatitis and sclerosing cholangitis), inflammatory bowel disease, gluten-sensitive enteropathy and Whipple's diseases, erythema multiforme, contact dermatitis, psoriasis), allergic diseases such as asethma, allergic chinitis, atopic dermatitis, for son diseases such as asethma, allergic chinitis, atopic dermatitis, contact dematitis, including graft rejection and graft-versus-host diseases

NAX

```
ö
                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                              0; Gaps
      Length 90;
                                            Indels
                                              ..
100.0%; Score 462; DB 4;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                   Best Local Similarity 100.
Matches 90; Conservative
  Query Match
```

PRO polynucleotides used to produce polypeptides used to target bioactive molecules such as toxins, radiolabels or antibodies, to specific cells, to cause targeted cell death.

Claim 12; Fig 272; 935pp; English.

The present invention describes human secreted and transmembrane PRO proteins. The PRO proteins have cytostatic activity. The PRO proteins can be used for targeted delivery of bioactive molecules, such as toxins, radiolabels or antibodies, that cause cell death. PRO nucleotide sequences, and their fragments, can be used as hybridisation probes, in

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

d à

à

```
Human; secreted and transmembrane protein; PRO; cytostatic; cell death; cancer; chromosomal mapping; gene mapping; tissue typing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Godowski PJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Desnoyers L, Ear.
n ME, Goddard A, Go.
Ma, Pan J, P?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker KP, Botstein D, Desnoyers C, ong S, Gerber H, Gerritsen ME, Goddard J Gurney AL, Kljavin IJ, Napier MA, Pan Art TA, Tumas D, Watanabe CK, Williams
                                                                                                          Human PRO1159 (UNQ589) protein sequence SEQ ID NO:377
61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                     AAB65271 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                          99WO-US028301.
99WO-US030095.
99WO-US030911.
                                                                                                                                                                                                                                                          99US-0143048P
                                                                                                                                                                                                                                                                                                      99WO-US021090
                                                                                                                                                                                                                       2000WO-US008439
                                                                                                                                                                                                                                                                  99US-0144758P
                                                                                                                                                                                                                                                                             99US-0145698P
                                                                                                                                                                                                                                                                                      99US-0146222P
                                                                                                                                                                                                                                                                                              99US-0149396P
                                                                                                                                                                                                                                                                                                                  99WO-US021547
                                                                                                                                                                                                                                                                                                                        99US-0158663P
                                                                                                                                                                                                                                                                                                                                                                       2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                         22-FEB-2000; 2000WO-US00414
24-FEB-2000; 2000WO-US004914.
24-FEB-2000; 2000WO-US005004.
                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US005841
                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ferrara N, Fong S,
Grimaldi CJ, Gurney
Roy MA, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-032160/04.
                                                                                                                                                diagnostic assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAF44240
                                                                                                                                                                                  WO200073454-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ashkenazi AJ,
                                                                                          02-APR-2001
                                                                                                                                                                                                                      30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                               06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                     15-SEP-1999;
15-SEP-1999;
08-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                     05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                30-NOV-1999;
                                                                                                                                                                                                                                       12-JUN-1999
                                                                                                                                                                                                                                                                  20-JUL-1999
                                                                                                                                                                                                                                                                                                                                           01-DEC-1999;
                                                                                                                                                                                                    07-DEC-2000
                                                                                                                                                                                                                                                                                    28-JUL-1999
17-AUG-1999
                                                                                                                                                                                                                                                                                                                                                   6-DEC-1999
                                                                                                                                                                                                                                                                                                                                                            20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhang Z;
```

Tumas D;

Godowski PJ; Shelton DL,

Goddard A, Kabakoff RC,

Chan B,

Henzel W,

```
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
                                                                                                                                                               17-JUN-1998;
17-JUN-1998;
18-JUN-1998;
                                                                                      11-JUN-1998;
                                                                                                      16-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                24-JUN-1998
                                                                                                                                                                                                                                                                                                                                         24-JUN-1998
                                                                                                                                              17-JUN-19
                                                                                                                                                                                       18-JUN-1
      chromosomal and gene mapping, and in the generation of anti-sense RNA and DNA. They may also be used to produce transgenic animals which are used to develop and screen therapeutically useful reagents. The PRO nucleotide and protein sequence can be used for tissue typing and in treating cancer. Anti-PRO antibodies can be used in diagnostic assays. AAF44270 to AAF44470 represent PCR primers and hybridisation probes used in the isolation of human PRO sequences. AAF444097 to AAF44269 and AAB65154 to AAB65300 represent human PRO polymucleotide and protein sequences given in the exemplification of the present invention
                                                                                                                                  1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT 60
                                                                                                                                                      9
                                                                                                                                               Human, PRO, cytostatic, tumour, cancer, breast, lung, stomach, liver,
horse, cow, dog, cat, sheep, pig, goat, rabbit, ADEPT,
antibody-dependent enzyme mediated prodrug therapy.
                                                                                                                      Gaps
                                                                                                                      0;
                                                                                                     Length 90;
                                                                                                  ch 100.0%; Score 462; DB 4; Length 9 1 Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                            ABU58086 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0075945P

98US-0084610P

98US-0084610P

98US-008760P

98US-008760P

98US-008760P

98US-008760P

98US-008782P

98US-0088021P

98US-0088021P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P
                                                                                                                                                                                                                                                                                                                                                                                          97US-0049787P.
97US-0062250P.
97WO-0065186P.
97US-0065311P.
97US-0066770P.
                                                                                                                                                                                                                                                                                                                                                                            15-NOV-2001; 2001US-00997666
                                                                                                                                                                                                                                                                           Human PRO polypeptide #118.
                                                                                                                                                                                                                                                            (first entry)
                                                                                                          Local Similarity
                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                            US2003027163-A1
                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                          13.NOV-1997;
24-NOV-1997;
25-ERB-1998;
20-MAR-1998;
07-MAY-1998;
07-MAY-1998;
02-UN-1998;
02-UN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                            14-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                           06-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-JUN-1998
04-JUN-1998
                                                                                                   Query Match
                                                                                                                                                                                                                                            ABU58086;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1-NDP-
                                                                                                           Best Loca
Matches
                                                                                                                                                                                                           RESULT 6
                                                                                                                                                                                                                    ABU58086
  셤
                                                                                                                                                                                                                            ð
```

```
98US-0088217P.
98US-0088655P.
98US-0088738P.
98US-0088742P.
98US-0088742P.
98US-0088740P.
98US-008876EP.
98US-008876EP.
98US-0089532P.
98US-0089532P.
98US-0089532P.
98US-0089532P.
98US-0089532P.
98US-0089532P.
98US-0089532P.
98US-0089613P.
98US-0089613P.
98US-0089613P.
98US-0089613P.
98US-0089613P.
98US-0089613P.
98US-009961P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0091982P
98US-0092182P
98US-0093339P
98US-0094651P
98US-0095282P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0095301P.
98US-0095302P.
98US-0095318P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0095321P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0095325P
```

ω

```
98US-0095929P.
98US-0096012P.
98US-0096143P.
98US-0096329P.
98US-0096329P.
98US-0096757P.
                                                                                                                                                          98US-0097218P
98US-0097621P
98US-0097952P
98US-0097952P
98US-0097954P
98US-0097974P
98US-0097978P
98US-0097978P
98US-0097978P
98US-009798P
98US-009798P
                                                          9805-0096773P
9805-009687P
9805-0096891P
9805-0096895P
9805-0096895P
9805-0096895P
9805-009699P
9805-009695P
9805-009695P
9805-009695P
                                                                                                                                                                                                                                                                  98WO-US019437.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                            99US-0143048P.
99US-0144758P.
99US-0145698P.
                                                                                                                                                                                                                                                                                                                                                                  99US-0146222P.
99US-0149396P.
99WO-US021090.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US004914.
2000WO-US005004.
2000WO-US005841.
                                                                                                                                                                                                                                                                                                                      99US-0123957P.
99WO-US012252.
99US-0141037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219.
2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
                                                                                                                                                                                                                                                           98WO-US019330.
                                                                                                                                                                                                                                                                                        98WO-US025108.
98US-0113296P.
                                                                                                                                                                                                                                                                                                        99WO-US000106
                                                                                                                                                                                                                                                                                                               99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                       99WO-US021547
99US-0158663P
                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028313
99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US006319
2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US013358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US03
                    11-AUG-1998;
12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAY-2000;
17-MAY-2000;
22-MAY-2000;
                                                           17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
18-AUG-1998;
                                                                                                                      18-AUG-1998;
18-AUG-1998;
                                                                                                                                    -AUG-1998;
-AUG-1998;
-AUG-1998;
-AUG-1998;
-AUG-1998;
                                                                                                                                                                                -AUG-1998;
-AUG-1998;
-AUG-1998;
-AUG-1998;
                                                                                                                                                                                                                     -AUG-1998;
-AUG-1998;
-AUG-1998;
-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                         17-AUG-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                               AUG-1998
                                                                                                                                                                                                                                                                                                                              -JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                       15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                               08-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                      DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                             16-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                       30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-1999
                                                                                                                                                                                                                                                                                                                MAR-19
                                                                                                                                                                                                                                                                                                DEC-1
                                                                                                                                                                                                                                                                                                                                    3-JUN-1
```

```
0
                                                                                                                                    1 MTFFLSILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTRAVKTT 60
                                                                                                                                                                                                                                                                                                                                 Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing; cardiac insufficiency disorder; cancer; tumour; immune response; adrenal cortical capillary endothelial growth; c-fos induction; vascular endothelial growth factor inhibition; VGF inhibition; endothelial cell growth inhibitor; T-lymphocytes stimulation; retinal neurons cell survival; rod photoreceptor cell survival; retinal disorder; retinitis pigmentosun; kidney disorder; mammalian kidney mesangial cell proliferation; Berger disease; dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation; chondrocyte redifferentiation; sports injury; arthritis.
                                                                                                                      Gaps
                                                                                                                     0;
                                                                                                 Length 90;
                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                              Novel human secreted or transmembrane protein PRO1159
                                                                                              100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
                                                                                                                   0; Mismatches
                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                      Ā
30-MAY-2000; 2000MO-US014941.

02-JUN-2000; 2000MO-US015264.

23-JUN-2000; 2000MO-US020710.

11-AUG-2000; 2000MO-US022031.

23-AUG-2000; 2000MO-US023328.

24-AUG-2000; 2000MO-US023328.

07-SEP-2000; 2000MO-US023328.
                                                                                                                                                                                                                                                   ABUS9164 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-NOV-2001; 2001US-00990442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0049787P
                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                      Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2002132252-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                            28-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-OCT-1997;
05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-MAR-1998;
28-APR-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-1998
                                                                                                                                                                                                                                                                      ABU59164;
                                                                                            Query Match
Best Local S
                                                                                                                                                                             61
                                                                                                                                                                                                 61
                                                                                                               Matches
                                                                                                                                                                                                                              RESULT 7
ABUS9164
  à
                                                                                                                                                      원
                                                                                                                                                                                            d
                                                                                                                                                                                                                                                   ò
```

```
98US-0088212P.
98US-0088217P.
98US-0088734P.
98US-0088734P.
98US-0088742P.
                                                                                              98US-0089440P.
98US-0089512P.
98US-0089514P.
                                                            98US-0088824P.
98US-0088826P.
98US-0088858P.
                                                                             98US-0088861P.
98US-0088876P.
98US-0089105P.
                                                                                                                       98US-0089538P.
98US-0089598P.
98US-0089599P.
                                                                                                                                        98US-0089600P.
98US-0089653P.
98US-0089801P.
98US-0089907P.
      98US-0088167P.
98US-0088202P.
                                                                                                                 98US-0089532P.
                                                                                                                                                                       98WO-US019330.
                                                                                                                                                                                    98WO-US021141
                                                                                                                                                                                          98WO-US025108
99WO-US000106
                                                                                                                                                                                                                 99WO-US021090
                                                                                                                                                                                                                                                                                   2000WO-US004414
                                                                                                                                                                                                      99WO-US005028
                                                                                                                                                                                                            99WO-US012252
                                                                                                                                                                                                                       99WO-US021547
                                                                                                                                                                                                                              99WO-US028313
                                                                                                                                                                                                                                          99WO-US028634
                                                                                                                                                                                                                                               99WO-US030095
                                                                                                                                                                                                                                                                  2000WO-US000376
                                                                                                                                                                                                                                                                             000WO-US004341
                                                                                                                                                                                                                                                                                               2000WO-US005004
                                                                                                                                                                                                                                                                                                            2000WO-US006319
                                                                                                                                                                                                                                                                                                                                               2000WO-US014042
                                                                                                                                                                                                                                   99WO-US028301
                                                                                                                                                                                                                                                                                                     2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00941992
                                   10-JUN-1998
                                                            0-JUN-1998
                                                                 10-JUN-1998
                                                                              1-JUN-1998
                                                                                   11-JUN-1998
                                                                                                                 7-JUN-1998
                                                                                                                                   7-JUN-1998
                                                                                                                                                                                                                                                                                  22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                          02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                       11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                   24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                   28-AUG-2001;
                                                                                                                        .7-JUN-1998
                                                                                                                                          7-JUN-1998
                                                                                                                                                     8-JUN-1998
                                                                                                                                                                  18-JUN-1998
                                                                                                                                                                             7-SEP-1998
                                                                                                                                                                                                                                                                                                                -MAR-2000
                                                                                               16-JUN-1
                                                     10-JUN-1
                                                                                                                                               1-UUT-7
                                                                                                           6-JUN-3
```

Human; PRO; secreted protein; transmembrane protein;

Human secreted/transmembrane protein PRO1159.

```
The invention describes an isolated human PRO polypeptide. The PRO polypeptides in a sample, in polypeptides are useful in detecting PRO polypeptides in a sample, in in modulating a bioactive molecule to a cell expressing a PRO polypeptide, and in modulating at least one biological activity of a cell expressing a PRO polypeptide. PRO1312 stimulates hypotrophy of neonatal heart and is thus useful for treating cardiac insufficiency disorders. PRO1154 and PRO186 ctimulate adrenal cortical capillary endochelial growth, and PRO336, PRO943, PRO828, PRO1068 or PRO535, PRO926, PRO919, PRO1166 or PRO536, PRO943, PRO828, PRO026, or Seful for treating conditions or disorders where angiogenesis would be beneficial, e.g. wound healing and antagonist of this polypeptide are useful for treating cancerous tumours. PRO812 inhibits vascular condothelial growth factor (VEGF) stimulated proliferation of endothelial growth is prowth factor (VEGF) stimulated proliferation of calls and is thus useful for inhibiting tumour growth. PRO826, PRO1068, PRO1194, PRO1346 and PRO1375 stimulate proliferation of stimulated T-lymphocytes and are therapeutically useful for rehancing immune response. PRO828, PRO826, pro1068 or PRO1132 enhance survival/proliferation of disorders of injuries, e.g. retinitis pigmentosum, AMD. PRO919, PRO913 and therefore are useful for treating kidney disorders associated with dermatitis, herpetiformis or crohn's decreased mesangial cell function such as Berger disease or other complexation and/or redifferentiant one of photorecipic or decreased mesangial cell function such as Berger disease or other compliferation and/or redifferentiation of Appropriate and are useful for treating sports injuries, and arthritis. This is the mine areful for treating sports injuries, and arthritis. This is the amine and are an ovell human proprecient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLILLVCEAIWESNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                               ΡJ;
                                                                                                                                                                                                      Novel isolated PRO polypeptides e.g., PRO826, PRO1068, PRO1184, PRO1346 and PRO1375, which stimulate proliferation of stimulated T-lymphocytes are therapeutically useful for enhancing immune response and in cancer
                                           Godowski P
Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 90;
                   KP, Botstein D, Desnoyers L, Eaton
Gerber H, Gerritsen ME, Goddard A,
AL, Kljavin IJ, Napier MA, Pan J,
Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                            Claim 12; Fig 272; 648pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU82676 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.00
Thes 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                Ferrara N, Fong S,
Grimaldi JC, Gurney
Roy MA, Stewart TA,
                   Baker
                                                                                                                                           WPI; 2003-247083/24.
N-PSDB; ABX80363.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 90 AA;
                 Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-JUN-2003
                                                                                                                                                                                                                                                                         treatments,
                                                                                                 Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABU82676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABU82676
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
cardiac insufficiency disorders; angiogenesis; wound healing; cancerous tumour; immune response; retinal disorder; sight loss; retinitis pigmentosum; age-related macular degeneration; AMD; kidney disorder; Berger disease; nephropathy; dermatitis; herpetiformis; Crohn's disease; sports injury; arthritis.
                                                                                                                                                                                                                                                 9705-0049787P.
9705-0062250P.
9705-0062311P.
9705-0065311P.
9705-0065311P.
9705-0065311P.
9705-0065311P.
9805-0084600P.
9805-0087607P.
9805-0087607P.
9805-0088028P.
9805-0088028P.
9805-0088028P.
9805-0088028P.
9805-008810P.
9805-008811P.
9805-0088128P.
9805-0088128P.
9805-008814AP.
9805-0088128P.
9805-008814AP.
9805-00881AP.
9805-00881AP.
9805-008951AP.
                                                                                                                                                                                                              14-NOV-2001; 2001US-00990711
                                                                                                                                            US2003032023-A1
                                                                                                                                                                                                                                                 16-JUN-1997;
17-CCT-1997;
12-NOV-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
26-APK-1998;
77-MAX-1998;
77-MAX-1998;
78-APK-1998;
78-AP
                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 - 70N - 1998,
11 - 70N - 1998,
11 - 70N - 1998,
11 - 70N - 1998,
12 - 70N - 1998,
16 - 70N - 1998,
17 - 70N - 1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-1998;
19-JUN-1998;
19-JUN-1998;
19-JUN-1998;
22-JUN-1998;
22-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUN-1998;
23-JUN-1998;
24-JUN-1998;
                                                                                                                                                                              13-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-JUN-1998
```

```
98US-0090433P

98US-0090445P

98US-0090445P

98US-0090445P

98US-0090445P

98US-0090445P

98US-0090542P

98US-0090650P

98US-0090650P

98US-0090650P

98US-0090650P

98US-0090651P

98US-0090651P

98US-0090651P

98US-009065P

98US-009065P

98US-009065P

98US-009065P

98US-009065P

98US-009065P

98US-009065P

98US-009154P

98US-009065P

98US-009164B

98US-00965B

98US-00967B

98US-00967B

98US-0096691P

98US-00967B

98US-00967B

98US-00967B

98US-00967B

98US-00967B

98US-00968B

98US-00967B

98US-00968B

98US-00967B

98US-00968B

98US-00968B

98US-00968B

98US-00968B

98US-00968B

98US-00968B

98US-00968B

98US-0097B

98US-0097B

98US-0097B
24 - 70N - 1998

25 - 70N - 1998

26 - 70N - 1998

26 - 70N - 1998

27 - 70N - 1998

28 - 70N - 1998

29 - 70N - 1998

20 - 70L - 1998

20 - 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
19-AUG-1998;
20-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
31-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-AUG-1998;
```

```
gene expression modulator; proteoglycan release; cytokine release; tumour; inflammatory disease; organ failure; atherosclerosis; cardiac injury; infertility; birth defect; premature aging; AIDS; acquired immunodeficiency syndrome; cancer; diabetic complication; chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor; bioreactor; tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US022992.
98WO-US024855.
98WO-US025108.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028214.
99WO-US028214.
99WO-US028313.
99WO-US028409.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028551.
99WO-US028564.
99WO-US028565.
99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US031274.
2000WO-US000219.
2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US010733
99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030911.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US008439
                                                                                                                                                                                                 US2003032156-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JAN-2000

06-JAN-2000

06-JAN-2000

11-FEB-2000

18-FEB-2000

22-FEB-2000

24-FEB-2000

24-FEB-2000

01-MAR-2000

02-MAR-2000

10-MAR-2000

10-MA
                                                                                                                                                                                                                                                                                                                                                                                                          10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                     06-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                           13-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-SEP-19
        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic; antidiabetic; gene therapy; tumour necrosis factor (TNF)-alpha release; TNF-alpha release; cell proliferation; cell differentiation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; secreted and transmembrane protein; PRO; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel human secreted and transmembrane protein PR01159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 462; DB 6; ilarity 100.0%; Pred. No. 9.8e-49; Conservative 0; Mismatchor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                              26-JUL-1999; 99US-01455958; 26-JUL-1999; 99US-0145522P. 17-SEP-1999; 99US-0145522P. 15-SEP-1999; 99US-0145522P. 15-SEP-1999; 99US-01450321547. 08-OCT-1999; 99US-015086313. 01-DEC-1999; 99WO-US028313. 01-DEC-1999; 99WO-US028313. 01-DEC-1999; 99WO-US028313. 01-DEC-1999; 99WO-US028313. 01-DEC-1999; 99WO-US038091. 05-JAN-2000; 2000WO-US03091. 05-JAN-2000; 2000WO-US0004314. 22-FEB-2000; 2000WO-US004414. 24-FEB-2000; 2000WO-US006319. 11-FEB-2000; 2000WO-US006319. 12-MAR-2000; 2000WO-US006319. 15-MAR-2000; 2000WO-US006319. 15-MAR-2000; 2000WO-US006319. 15-MAR-2000; 2000WO-US006319. 17-MAR-2000; 2000WO-US0083177. 22-MAR-2000; 2000WO-US00831378. 17-MAR-2000; 2000WO-US00831378. 17-MAR-2000; 2000WO-US00831378. 17-MAR-2000; 2000WO-US00313705. 22-MAR-2000; 2000WO-US0133705. 22-MAR-2000; 2000WO-US013705. 22-MAR-2
                                                                                                                                                                                                                                                                                                                                                                                  99WO-US021547.
99WO-US021547.
99WO-US028113.
99WO-US028301.
99WO-US03095.
99WO-US03095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AB017852 standard; protein; 90
                                                                                                                                                                                                                                      99US-0141037P.
99US-0143048P.
99US-0144758P.
                        98WO-US019330.
98US-0100858P.
98WO-US019437.
                                                                                                            98WO-US025108.
98US-0113296P.
99WO-US000106.
                                                                                                                                                                        99WO-US005028.
99US-0123957P.
99WO-US012252.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-MAY-2000; 2000WO-US014941
02-JUN-2000; 2000WO-US015264
23-JUN-2000; 2000US-0213637P
                                                                                        98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-AUG-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                    07-0CT-1998;
01-DEC-1998;
22-DEC-1998;
05-JAN-1999;
08-MAR-1999;
12-MAR-1999;
                                                                                                                                                                                                                                      23-JUN-1999;
07-JUL-1999;
20-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABO17852;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
```

```
2001WO-US020116.
2001WO-US021066.
2001WO-US021735.
                                                                                                                              2001US-00816744
                                                                                                                                                  2001US-00854280
                                                                                                                                                                 2001US-0086602B
                                                                                                                                                                       2001US-00866034
                                                                                                                                                                               2001WO-US017092
                                                                                                                                                                                     2001US-00872035.
2001WO-US017800.
                                                                                                                                                                                                    2001US-00874503.
                                                                                                                                                                                                                  2001US-00886342
                                                                                                                                                                                                                         2001WO-US019692
                                                                                                                                                                                                                                 2001US-00887879
                                                                                                                                                                                                                                                           2001US-00908827
                                                                                                                                                                                                                                                                   2001US-00924419
                                                                                                                                                                                                                                                                          2001US-00927796
                                                                                                                                                                                                                                                                                        2001US-00028072
                                                                      2000WO-US032678
                                                                                                  2001WO-US006520
                                                                                                                       2001US-00808689
                                                                                                                                     2001US-00828366
                                                                                                                                            2001US-00854208
                                                                                                                                                                                                                                                                                 001US-00931836
                                                                                          2001US-00796498
                                                                                                               2001US-00802706
                                                                                                                                                                                                                                                                                                                                                                                         syndrome (AIDS), or cancer
                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                   Beresini M,
                                                                                                                                                                                                                                                                                                                                 Stewart TA,
                                                                                                                                                                                                                                                                                                                                                WPI; 2003-341980/32.
                                                                                                                                                                                                                                                                                                                                                       N-PSDB; ACD24089.
                          28-JUL-2000;
11-AUG-2000;
23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
                                                                    01-DEC-2000;
20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
01-MAR-2001;
03-MAR-2001;
14-MAR-2001;
22-MAR-2001;
02-AMR-2001;
05-AMR-2001;
06-AMR-2001;
                                                                                                                                                 10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
01-JUN-2001;
                                                                                                                                                                                                                        20-JUN-2001;
21-JUN-2001;
22-JUN-2001;
      22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                        19-DEC-2001;
                                                                                                                                                                                                                                                                                                                           Gerritsen ME,
                                                                                                                                                                                             01-JUN-2001;
                                                                                                                                                                                                                                                                          09-AUG-2001;
                                                                                                                                                                                                                                              29-JUN-2001;
                                                                                                                                                                                                                                                                    06-AUG-2001
                                                                                                                                                                                                                                                                                                                    Baker KP,
                                                                                                                                                                                                                                                                                                                                  Smith V,
```

Σ, Gao Sherwood S; WI, Zhang Z; Filvaroff E, y AL, She: Wood WI, resini M, Deforge L, Desnoyers L, Goddard A, Godowski PJ, Gurney A wart TA, Tumas D, Watanabe CK, Wo

inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, axquired immunodeficiency secreted and transmembrane PRO nucleic acids, for treating

Claim 12; Fig 474; 660pp; English.

The invention describes an isolated mucleic acid (I) comprising, or which has 80 % sequence identity to, or the full-length coding sequence of, one 67 75 nucleotide sequences, and which encodes a corresponding color of 275 nucleotide sequences, and which encodes a corresponding color polypeptide selected from 275 amino acid sequences, where all sequences are given in the specification. The polypeptide encoded by (I) is used to detect PRO polypeptides, link a bioactive molecule to a call expressing a PRO polypeptide, modulate a biological activity of a cell, stimulate the release of tumour necrosis factor (TNF)-alpha from human blood, modulate the proliferation or differentiation of cells or gene expression, the proliferation or differentiation of cells or gene expression, continulate the release of cytokine stimulate the release of cytokine stimulate the release of cytokine continued monomuclear cells, inhibit the binding of A-peptide to factor VIIA, or detect the presence of tumour in a mammal. The nucleic acid and polypeptide encoded by it, are useful for treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility,

```
ö
birth defects, premature aging, acquired immunodeficiency syndrome (AIDS), cancer, or diabetic complications. The nucleic acid is useful as hybridisation probes, in chromosome and gene mapping, and in generating antisense RNA or DNA. The polypeptides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both are useful in tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide
                                                                                                                                                                                       1 MIFFELSLILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTFTKAVKTT 60
                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                         Human, PRO; secreted; transmembrane; signal peptide; pharmaceutical;
diagnostic; therapeutic; gene therapy.
                                                                                                                   Length 90;
                                                                                                                                           0; Indels
                                                                                                                   100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                  Human Becreted/transmembrane protein, #154.
                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                              ABU60595 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0088126P.
98US-0088167P.
98US-0088212P.
98US-0088217P.
98US-008855P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-US020069.
97US-0065186P.
97US-0065311P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0066770P.
98US-0075945P.
98US-0078910P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0084600P.
98US-0087106P.
98US-0087607P.
98US-0087609P.
98US-0087759P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0088021P.
98US-0088025P.
98US-0088026P.
98US-0088029P.
98US-0088039P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00992598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0083322P
                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                              1 Similarity 100.
90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2002160384-A1.
                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUN-1998;
09-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-NOV-1997;
13-NOV-1997;
                                                                                                                                                                                                                                                                                                                                            01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUN-1998;
                                                                                                                                                                                                                                                                                                                    ABU60595;
                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -NEC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04 - JUN-
                                                                                                                                          Matches
                                                                                                                                                                                                                                                                        RESULT 10
                                                                                                                                                                                                                                                                                   ABU60595
   888888888888
                                                                                                                                                                                       ద
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                         ð
```

WPI; 2003-288106/28.

```
06-JAN-2000; 2000WO-US000376: 11-FEB-2000; 2000WO-US000376: 18-FEB-2000; 2000WO-US000376: 18-FEB-2000; 2000WO-US000376: 18-FEB-2000; 2000WO-US000414: 14-FEB-2000; 2000WO-US0050914: 15-MAR-2000; 2000WO-US0050919: 15-MAR-2000; 2000WO-US006819: 15-MAR-2000; 2000WO-US006819: 15-MAR-2000; 2000WO-US0081370: 15-MAY-2000; 2000WO-US01370: 15-MAY-2000; 2000WO-US01370: 22-MAY-2000; 2000WO-US01370: 22-MAY-2000; 2000WO-US01370: 23-MU-2000; 2000WO-US01356: 11-AUG-2000; 2000WO-US01256: 28-JUL-2000; 2000WO-US0126: 28-FEB-2001; 2000WO-US012678: 28-FEB-2001; 2000WO
                                                                                                                                                                        98US-00895112P-
98US-0089513P-
98US-0089532P-
98US-008959P-
98US-008959P-
98US-008960P-
98US-0089901P-
98US-0089901P-
98US-0089901P-
98US-0089901P-
                                                                                  98US-0088858P.
98US-0088861P.
98US-0088876P.
98US-0089105P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US021547.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US012252.
99WO-US021090.
                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001; 2001WO-US017800.
20-JUN-2001; 2001WO-US019692.
                                                  98US-0088824P.
98US-0088826P.
                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US025108.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
20-DEC-1999;
05-JAN-2000;
           10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
11-JUN-1998;
                                                                                                                                                                                                                                                                                                   17-JUN-1998;
18-JUN-1998;
18-JUN-1998;
18-JUN-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-MAR-1999;
02-JUN-1999;
15-SEP-1999;
15-SEP-1999;
30-NOV-1999;
                                                                                                                                      12-JUN-1998;
16-JUN-1998;
16-JUN-1998;
16-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                           17-SEP-1998;
07-OCT-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-AUG-2001;
                                                                                                                                                                                                                                                                 17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JAN-1999;
```

```
Godowski PJ;
Paoni NF;
Wood WI;
Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S, Gerber H, Gerriteen MB, Goddard A, God
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Pao
Gry MA, Stewart TA, Tunas D, Warenabe CK, Williams PM, Wo
                                                                                          Roy MA,
Zhang Z;
```

```
The invention discloses isolated PRO secreted/transmembrane polypeptides comprising a sequence without signal peptide and the nucleic acid encoding them. The polypeptides can be used to raise antibodies that specifically bind to the PRO polypeptide, for linking a bioactive molecule to a cell expressing a PRO protein and for modulating at least one biological activity of a cell. The PRO polypeptides or polymucleotides are also useful in gene therapy, in chromosome companies are useful as molecular markers or in generating probes. The PRO polypeptides are useful as molecular markers for protein electrophoresis, and the isolated nucleic acids may be used for recombinantly expressing those markers. The PRO polypeptides are useful in diagnostic assays for those markers. The PRO polypeptides are useful in diagnostic assays for those markers. The PRO polypeptides are useful in diagnostic assays for prot. PRO, and in affinity purification of PRO from recombinant cell culture or natural sources. The sequences presented in ABME0674 are the PRO polymucleotides of the invention. Note: The sequence data for this patent is also available in electronic format from USPFO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT 60
                                             New transmembrane polypeptides and nucleic acids encoding the polypeptides, useful in gene therapy, in chromosome identification, as chromosome markers, or in generating probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; PRO polypeptide, secreted protein; transmembrane protein; genetic disorder; antibacterial; immunosuppressive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                           Claim 12; Fig 272; 650pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU13977 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0062250P.
97US-0062250P.
97WO-US020069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97US-0065186P.
97US-0065311P.
97US-0066770P.
98US-0075945F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0078910P.
98US-0083322P.
98US-0084600P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-NOV-2001; 2001US-00989731,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human PRO1159 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2002103125-A1.
                  N-PSDB; ABX90341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-FEB-1998;
20-MAR-1998;
28-APR-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU13977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

us-09-989-293a-377.jun1.rag

```
9805-0087279-
9805-00880221-
9805-00880221-
9805-00880280-
9805-00880280-
9805-00880280-
9805-008802129-
9805-008802179-
9805-008802179-
9805-008802179-
9805-008802179-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00880280-
9805-00890280-
9805-00890280-
9805-00890280-
                                                                                                                                                                                                                                                                                    98US-0089653P.
98US-0089801P.
98US-0089907P.
                                                                                                                                                                                                                                                                                                           98US-0089908P.
98WO-US019330.
98WO-US019437.
98WO-US021141.
                                                                                                                                                                                                                                                                                                                                           99WO-US005108.
99WO-US000106.
99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                  99WO-US011252.
99WO-US021090.
99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US015264.
2000WO-US020710.
2000WO-US022031.
                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028313,
99WO-US028301,
                                                                                                                                                                                                                                                                                                                                                                                                                 3600E0SU-0M66
                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US004341
2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005841
2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US013358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014042
2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US007377
                                                                                                                                            10 - JUN-195
10 - JUN-195
10 - JUN-1996
10 - JUN-1998
10 - JUN-1998;
11 - JUN-1998;
11 - JUN-1998;
2 - JUN-1998;
2 - JUN-1998;
- JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                               16-DEC-1999;
20-DEC-1999;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-MAR-2000;
20-MAR-2000;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-JUL-2000;
11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-MAR-2000;
                                                                                                                                                                                                                      16-JUN-1998;
16-JUN-1998;
16-JUN-1998;
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                    17-JUN-1998;
18-JUN-1998;
18-JUN-1998;
18-JUN-1998;
                                                                                                                                                                                                                                                                                                                    16-SEP-1998;
17-SEP-1998;
07-OCT-1998;
01-DEC-1998;
05-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-FEB-2000;
24-FEB-2000;
                                                                           04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                  SEP-1999
                                            04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                          30-NOV-1999
                                                                                                                                                                                                                                                                  7-JUN-1
                                                                                                                           05-JUN-1
```

```
The present invention relates to the isolation of novel human PRO
polypeptides, and the polynucleotide sequences encoding them. The PRO
polypeptides are secreted and transmembrane proteins. The PRO
polypeptides are useful for detecting other PRO polypeptides, for linking
polypeptides are useful for detecting other PRO polypeptides, for linking
biological activities of cells expressing PRO polypeptides, and for for
identifying agonists or antagonists. The polynucleotide sequences
cleromosome and gene mapping, in the generation of antisense RNA and DNA,
in the preparation of PRO polypeptides, for generating transgenic animals
or knockout animals, to construct hybridisation probes for mapping the
gene which encodes the PRO polypeptides, and for the genetic analysis of
individuals with genetic disorders, in gene therapy, for chromosome
identification, as chromosome markers, and for generating probes for PCR,
Northern analysis, Southern analysis and Western analysis. ABU13860-
ABU1400s represent the human PRO polypeptides of the invention. Note: The
sequence data for this patent was obtained in electronic format directly
from the USPTO web site at sequata.uspto.gov/psipsDIDEntry.html
                                                                                                                                                                                                                                                                   DL;
Godowski PJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                         Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 100.0%; Score 462; DB 6; Length 90; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; PRO polypeptide; secreted and transmembrane protein;
                                                                                                                                                                                                                                                                 Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton
Perrara M, Fong S, Gerber H, Gerritsen ME, Goddard A,
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J,
Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; Fig 272; 649pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABU81106 standard; protein; 90 AA.
23-AUG-2000; 2000MO-US023522.
24-AUG-2000; 2000MO-US023328.
08-NOV-2000; 2000MO-US032678.
01-DEC-2000; 2001MO-US032678.
23-FEB-2001; 2001MO-US015800.
20-JUN-2001; 2001MO-US019692.
20-JUL-2001; 2001WO-US01965.
09-JUL-2001; 2001WO-US01735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                             (GETH ) GENENTECH LID
                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-102117/09.
                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ABX64187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU81106;
                                                                                                                                                                                                                                                                                                                                                    Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU81106
      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

ö

9 09

```
anti-PRO antibody; diagnostic assay; gene expression; diabetes; bone disorder; cartilage disorder; rheumatoid arthritis; obesity; sports injury; osteoarthritis; hyper-insulinaemia; hypo-insulinaemia; hearing loss; coagulation disorder; stroke; heart attack; cardiant; antidiabetic; anorectic; vulnerary; antiarthritic; osteopathic; antirheumatic; auditory; cerebroprotective; angiogenic.
                                                                                                                                                                                                                                                                                                                 970S-0063127P.
970S-0063327P.
970S-0063329P.
970S-00633550P.
970S-0063550P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0077791P.
98US-0078910P.
98US-0079294P.
98US-0079663P.
98US-0079728P.
                                                                                                                                                                                             97US-0059184P.
97US-0059263P.
97US-0059382P.
97US-005988P.
97US-005986P.
97US-0062250P.
                                                                                                                                                                                                                                                                                                                                                                                                                      97US-00651B6P.
97US-0065846P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0072320P.
98US-0073612P.
98US-0074086P.
98US-0074092P.
                                                                                                                                                970S-0056974P.
970S-0059113P.
970S-0059115P.
970S-0059117P.
970S-0059122P.
                                                                                                                                                                                                                                                             97US-0062287P.
97US-0063755P.
97US-0062814P.
                                                                                                                                                                                                                                                                                       97US-0062816P.
97US-0063045P.
97US-0063082P.
                                                                                                                                                                                                                                                                                                                                                                         97US-0063733P.
97US-0063735P.
                                                                                                                                                                                                                                                                                                                                                                                                   97US-0064248P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0069334P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US012456.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019177
98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                            97US-0063738P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 97US-0066453P
                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0066511P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0069212P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-0069278P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0066770P
                                                                                                                     19-DEC-2001; 2001US-00028072
                                                                                    US2003004311-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-DEC-1997;
11-DEC-1997;
16-DEC-1997;
                                                                   Homo sapiens.
                                                                                                                                                                                                                                   24-SEP-1997;
17-OCT-1997;
17-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                           29-OCT-1997;
03-NOV-1997;
07-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                      12-NOV-1997;
17-NOV-1997;
21-NOV-1997;
24-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-JAN-1998
04-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-MAR-1998
                                                                                                                                                                                                                                                                                       24-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-NOV-1997
11-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MAR-1998
                                                                                                     02-JAN-2003.
                                                                                                                                                                                              17-SEP-1997
                                                                                                                                                                                                                19-SEP-1997)
                                                                                                                                                                                                                                                             17-0CT-1997
17-0CT-1997
                                                                                                                                                                                                                                                                                                          24-OCT-1997
24-OCT-1997
                                                                                                                                                                                                                                                                                                                             27-OCT-1997
27-OCT-1997
                                                                                                                                                                                                                                                                                                                                              28-OCT-1997
28-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                         29-OCT-1997
29-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-FEB-1998
                                                                                                                                                                              17-SEP-1997
                                                                                                                                                                                      17-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                 29-OCT-1997
                                                                                                                                                                                                                                                                       17-0CT-1
24-0CT-1
```

```
98WO-US022992
98WO-US024855
98WO-US024865
99WO-US06106
99WO-US065190
99WO-US006615
99WO-US01033
99WO-US01033
                                                                                                                                                                                                 2000WO-US000376
                                                                                                                                                                                                                                                2000WO-US005746
                                                                                  99WO-US020944
99WO-US021090
                                                                                                               99WO-US028313
99WO-US028409
                                                                                                                                                                    99WO-US030999
                                                                                                                                                                                           2000WO-US000277
                                                                                                                                                                                                       2000WO-US003565
                                                                                                                                                                                                            2000WO-US004341
                                                                                                                                                                                                                   2000WO-US004342
                                                                                                                                                                                                                         2000WO-US004414
                                                                                                                                                                                                                             2000WO-US004914
2000WO-US005004
                                                                                                                                                                                                                                          2000WO-US005601
                                                                       99WO-US020111
                                                                             99WO-US020594
                                                                                                    99WO-US023089
                                                                                                         99WO-US028214
                                                                                                                           99WO-US028301
                                                                                                                                 99WO-US028634
                                                                                                                                                   99WO-US028565
                                                                                                                                                              99WO-US030911
                                                                                                                                                                          99WO-US031243
            98WO-US022991
                                                                                              99WO-US021547
                                                                                                                                       99WO-US028551
                                                                                                                                                                                99WO-US031274
17-SEP-1998,
07-OCT-1998,
29-OCT-1998,
20-OCT-1998,
10-DEC-1998,
01-DEC-1998,
05-JAN-1999,
10-MAR-1999,
10-MAR-1999,
114-MAY-1999,
                                                                                                                                                                                                                                         01-MAR-2000;
02-MAR-2000;
                                                                                                                           -DEC-1999;
                                                                                                                                                                                           06-JAN-2000;
                                                                                                                30-NOV-1999;
                                                                                                                                             1999;
                                                                                                                                                   DEC-1999;
                                                                                                                                                                           1999;
                                                                      01-SEP-1999;
                                                                 02-JUN-1999
                                                                                               15-SEP-1999
                                                                                                                      30-NOV-1
```

Filvaroff E, Gao W; Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Goddard Beresini M, Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-352836/33 N-PSDB; ACA67230

OZ New isolated PRO polypeptide useful for treating diabetes, rheumatoid arthritis, sports injuries, obesity, hearing loss in mammals, stroke, heart attack.

Claim 12; Fig 474; 643pp; English.

The present invention relates to the isolation of novel human PRO polypeptides, and the polymucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO colypeptides are secreted and transmembrane proteins. The PRO colypeptides and polymucleotides are useful for preparing a medicament consetul in the treatment of diabetes, bone and/or cartilage disorders consetul in the treatment of sports injuries, osteoarthritis), obesity, hyper- or hypo-insulinaemia, hearing loss, and coagulation disorders consequence insulinaemia, hearing loss, and coagulation disorders consequence assays for PRO, by detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture contains and for affinity purification of PRO from recombinant cell culture contains the invention. Note: The sequence data for this patent was obtained in electronic format directly from the USPTO web site at sequence assays the properties of the invention. Note in the sequence of the site at sequence as the sequence of the invention of the sequence as the useful sequence.

```
New genes and secreted and transmembrane polypeptides (e.g. PRO183 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-352829/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ACA64409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-FEB-2000; 2
22-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
02-MAR-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-MAR-2000; 20-MAR-2000; 20-MA
                                                                                                                                                                                                                                                                                                                          18-JUN-1998;
18-JUN-1998;
18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                         07-OCT-1998;
01-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                           16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAR-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-SEP-1999;
Human; secreted and transmembrane protein; cytostatic; anti-HIV; virucide; hepatotropic; antiinflammatory; neuroprotective; gene therapy; PRO; pharmaceutical; diagnostic; biosensor; bioreactor; malignancy; cancer; ovarian cancer; colorectal cancer; Kaposi's sarcoma; leukaemia; lymphoma; hepatitis B; multiple sclerosis; Crohn's disease; drug screening.
                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                    Gaps
                                                                                                .
                                                  Length 90;
                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel human secreted and transmembrane protein PRO1159.
                                                  100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                       ABU72562 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9705-0062250P.
9705-0065118P.
9705-0065118P.
9705-0065111P.
9705-0066770P.
9805-0075945P.
9805-008460P.
9805-008767P.
9805-008767P.
9805-008767P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0088734P.
98US-0088738P.
98US-0088742P.
98US-008810P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0088033P.
98US-0088326P.
98US-0088167P.
98US-0088202P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0088212P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0088655P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-00B8B24P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-NOV-2001; 2001US-00989734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUN-2003 (first entry)
                                                       Query Match 100.
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003003531-A1.
         Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04 - 7UN - 1998 | 05 - 7UN - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
20-MAR-1998;
28-MAY-1998;
02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABU72562;
                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                            RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                      ABU72562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ğ
                                                                                                                                                   ò
                                                                                                                                                                                          g
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                      원
```

```
Godowski Po
Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eaton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KP, Botstein D, Desnoyers L, Eaton
Gerber H, Gerritsen ME, Goddard A,
AL, Kljavin IJ, Napier MA, Pan J,
Tumas D, Watanabe CK, Williams PM,
98US-0088858P.
98US-0088861P.
98US-0089105P.
98US-0089440P.
98US-0089512P.
98US-0089514P.
98US-0089532P.
98US-0089538P.
98US-0089538P.
                                                                                                                                                                                                     98US-0089653P.
98US-0089801P.
98US-0089907P.
98US-0089908P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-JUN-2001, 2001WO-US017800
20-JUN-2001, 2001WO-US019692.
29-JUN-2001, 2001WO-US021066.
09-JUL-2001, 2001WO-US021735.
28-AUG-2001, 2001US-00941992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-NOV-2000; 2000WO-US030952.
01-DEC-2000; 2000WO-US032678.
28-FEB-2001; 2001WO-US006520.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US008439.
2000WO-US013358.
2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-MAY-2000; 2000WO-US014941.
02-JUN-2000; 2000WO-US015264.
28-JUL-2000; 2000WO-US020710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-AUG-2000; 2000WO-US022031
23-AUG-2000; 2000WO-US023522
24-AUG-2000; 2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US000376.
2000WO-US003565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US006884
                                                                                                                                                                                                                                                                         98WO-US019330.
                                                                                                                                                                                                                                                                                                            98WO-US021141
                                                                                                                                                                                                                                                                                                                          98WO-US025108
99WO-US000106
                                                                                                                                                                                                                                                                                                                                                            99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                              99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ferrara N, Fong S, G
Grimaldi JC, Gurney A
Roy MA, Stewart TA,
Zhang Z;
```

PJ;

99WO-US005028. 99WO-US005190. 99WO-US008615.

99WO-US010733 99WO-US012252 99WO-US020111

99WO-US000106

99WO-US020594 99WO-US020944 99WO-US021090 99WO-US023089 99WO-US028214 99WO-US028409

99WO-US021547

99WO-US028313 99WO-US02B301 99WO-US028634 99WO-US028551 99WO-US028564 99WO-US028565

```
24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
01-DEC-2000;
20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                   05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-APR-2001;
                                                                                                                                                                                                                                                                                                                                         30-DEC-1999;
                                                                                                                                                                                                                                                                                                                 22-DEC-1999;
                                                                                          L4-MAY-1999
                                                                                                                            08-SEP-1999
                                                                                                                                                   5-SEP-1999
                                                                                                                                                                         35-OCT-1999
                                                                                                                                                                                                          30-NOV-1999
                                                                                                                                                                                                                                                                                DEC-1999
                                                                                                                                                                                               30-NOV-1999
the full length coding sequence of the DNA deposited with the American Type Culture Collection (e.g. ATCC Deposit No. 209621, 552-PTA, 819-PTA, 209439, 203135, etc); or a sequence with at least 80% identity to a DNA encoding a PRO polypeptides or polymucleotides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. These are particularly useful for detecting or treating e.g. malignancies or cancers (e.g. ovarian cancer, colorectal cancer, Kaposi's sarcoma, leukaemia or lymphoma), hepatitis B, multiple sclerosis, or Crohn's disease in mammals. The PRO polypeptides are useful in drug screening, particularly as targets for therappeutic intervention in these diseases. The PRO polypeptides are useful in drug screening, and in the diagnostic determination of the presence of these diseases. The PRO peptides are also useful as molecular weight markers or for chromosome identification. The PRO genes are useful as hybridisation probes, or for screening libraries of human cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide
                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                           1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
 PRO184), useful for treating or diagnosing e.g. ovarian cancer, Kaposi's sarcoma, leukemia, lymphoma, hepatitis B, multiple sclerosis or Crohn's
                                                                     The invention describes a new isolated nucleic acid molecule comprising
                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; PRO polypeptide; secreted and transmembrane protein;
tumour necrosis factor-alpha; TNF-alpha; blood; proliferation;
differentiation; chondrocyte; tumour; genetic disorder; cytostatic.
                                                                                                                                                                                                                                                                                                                 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU66806 standard; protein; 90 AA.
                                               Claim 12; Fig 272; 663pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US018824
98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAY-2002; 2002US-00143114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US014552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003036180-A1.
                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-FEB-2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABU66806;
                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU66806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
    g
```

2000WO-US000219 2000WO-US000277

2000WO-US004341 2000WO-US004342 2000WO-US004414 2000WO-US004914 2000WO-US005004 2000WO-US005601

99WO-US031243 99WO-US031274

99WO-US030095

000WO-US005746 2000WO-US006319 2001WO-US006520 2001WO-US006666 2001US-00808689 2001US-00828366

2001US-00802706

2001WO-US017092

2000WO-US030952 2000WO-US032678 2000US-00747259 2000WO-US034956

2000WO-US014042

2000WO-US020710 2000WO-US022031

```
The present invention relates to the isolation of novel human PRO polypeptides, and the polynucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane process. The PRO polypeptides are useful for detecting other PRO polypeptides, for linking the properties are useful for elective molecules to cells expressing PRO polypeptides, for modulating bloactive molecules to cells expressing PRO polypeptides, and for for identifying agonists or antagonists. The PRO polypeptides are useful for of stimulating the proliferation or differentiation of chondrocytes, and detecting the proliferation or differentiation of chondrocytes, and detecting the presence of tumours. The polynucleotide sequences encoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene mapping, in the generation of antisenses RNA and come, in the preparation of PRO polypeptides, for generating transgenic animals or knockout animals, for the generation of antisenses RNA and command in gene therapy. ABUG6570-ABUG684 transgenic animals or knockout animals, for the generation generating transgenic contains of stoppeptides of the invention. Note: The sequence data for this channer and solvanied in electronic format directly from the USPTO web site as sequence and specification of command directly from the USPTO web site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New secreted and transmembrane PRO nucleic acids, useful for gene therapy, in chromosome and gene mapping, as chromosome markers, in tissue typing, and in chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLILLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                          Beresini M, Deforge L, Desnoyers L, Filvaroff E, G. ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABUS9887 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 12; Fig 474; 660pp; English.
                                                                                                                                                 2001WO-US021066.
                                                                                                                                                                                      18-JUL-2001; 2001US-00908827
06-AUG-2001; 2001US-00924419
09-AUG-2001; 2001US-00927796
                                                                                                                                                                                                                                                     16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
                                                                                           2001WO-US019692.
2001US-00887879.
                                                                                                                                 2001WO-US020116
                                                                                                                                                                                                                                               2001US-00931836
2001US-00872035
                                                      2001US-00882636
                                                                        2001US-00886342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 100.
90; Conservative
                                                                                                                                                                                                                                                                                                            (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-332040/31.
N-PSDB; ACA03839.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                Gerritsen ME,
Smith V, Stewa
                01-7W-2001;
05-7W-2001;
14-7W-2001;
20-7W-2001;
21-7W-2001;
21-7W-2001;
22-7W-2001;
29-7W-2001;
29-7W-2001;
19-7W-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-MAY-2003
                                                                                                                                                                                                                                                                                                                                                    Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Si
Matches 90,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU59887;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABU59887
  XXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

. :

Gao

```
Human, PRO; hypertrophy of neonatal heart; angiogenesis; wound healing; cardiac insufficiency disorder; cancer; tumour; immune response; adremal cortical capillary endothelial growth; c-fos induction; vascular endothelial growth factor inhibition; VBGF inhibition; retinal cell growth inhibitor; T-lymphocytes stimulation; retinal disorder; retinits pigmentosum; kinche disorder; mammalian kidney mesangial cell proliferation; berger disease; dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation; chondrocyte redifferentiation; sports injury; arthritis.
Novel secreted and transmembrane protein PRO1159
                                                                                                                                                                                                                                                    98WO-US018824.
98WO-US019093.
98WO-US019094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US031243.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       000WO-US004341
                                                                                                                                                                                                                                                                                             98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                    99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                               99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US010733
99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US005004
                                                                                                                                                                                           2002US-00140808
                                                                                                                                                                                                                                                                                  98WO-US019177
                                                                                                                                                                                                                                                                                                                 98WO-US021141
                                                                                                                                                                                                                                                                                                                                              98WO-US024855
                                                                                                                                                                                                                                                                                                                                                       98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                 90T000SD-0M66
                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US021090
                                                                                                                                                   US2003017563-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-JAN-2000;
                                                                                                                                Homo sapiens.
                                                                                                                                                                                           07-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                              666
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEP-1999;
                                                                                                                                                                                                                                                                                             16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                         29-OCT-1998
29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                            08-MAR-1999
                                                                                                                                                                                                                                                                                                                 07-0CT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEP-1999
                                                                                                                                                                      23-JAN-2003
                                                                                                                                                                                                                                                      10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-OCT-1
29-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                              )1-SEP-1
```

2000WO-US005746

9

0; Gaps

```
2001US-00816744.
2001US-00828366.
2001US-00854208.
                                                                                                                                                                                                                                             2001WO-US017800.
2001US-00874503.
2001US-00882636.
                                                                                                                                                                                                                                                                                         2001WO-US020116.
2001WO-US021066.
                                                                                                                                                                                                                                                                                                                     2001US-00924419.
                                                                                                    2000WO-US030952.
2000WO-US030873.
2000WO-US032678.
                                                                                                                                                                                                          2001US-00860216.
                                                                                                                                                                                                                               2001WO-US017092.
                                                                                                                                                                                                                                                                                  2001US-00887879
                                                           2000WO-US014941.
                                                                                                                                        2001US-00796498.
2001WO-US006520.
                                                                                                                                                             2001US-00802706.
2001US-00808689
                                                                                                                                                                                                  2001US-00854280
                                                                                                                                                                                                                 2001US-00866028
2001US-00866034
                                                                                                                                                                                                                                                                                                                             2001US-00927796
                                                                                                                                                                                                                                                                                                                                   2001US-00931836
                                                                                                                                                                                                                                                                                                                                           19-DEC-2001; 2001US-00028072
                                         2000WO-US013705.
                                                 2000WO-US014042.
                                                                 2000WO-US015264.
                                                                                             2000WO-US023328
                                                                                                                                  2000WO-US034956
                                                                                                                                                        2001WO-US006666
                                                                                                                                                                                                                                                                    2001US-00886342
                                                                        2000WO-US020710
                                                                                2000WO-US022031
                                                                                                                          2000US-00747259
                                                                                                                 01-DEC-2000; 2
20-DEC-2000; 2
20-DEC-2000; 2
28-FEB-2001; 2
28-FEB-2001; 2
                                                                                                                                                       01-MAR-2001; 2
09-MAR-2001; 2
14-MAR-2001; 2
22-MAR-2001;
                                                                                                                                                                                     05-APR-2001; 2
10-MAY-2001; 2
10-MAY-2001; 3
                                                                                                                                                                                                          18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                           21-MAR-2000;
30-MAR-2000;
22-MAY-2000;
30-MAY-2000;
30-MAY-2000;
28-JUL-2000;
11-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
26-NOV-2000;
                                                                                                                                                                                                                                              01-JUN-2001;
05-JUN-2001;
                                                                                                                                                                                                                                                             14-JUN-2001;
                                                                                                                                                                                                                                                                   19-JUN-2001;
                                                                                                                                                                                                                                                                                                                             09-AUG-2001;
                                                                                                                                                                                                                                        . TOUN-2001;
                                                                                                                                                                                                                                                                                   21-JUN-2001;
                                                                                                                                                                                                                                                                                                 29-JUN-2001;
```

Gao W; Desnoyers L, Filvaroff E, G: PJ, Gurney AL, Sherwood S; tanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, Deforge L, Desnoyers) Gerritsen ME, Goddard A, Godowski PJ, Gurne; Smith V, Stewart TA, Tumas D, Watanabe CK,

WPI; 2003-148238/14.

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis. N-PSDB; ABX89377.

Claim 12; Fig 474; 659pp; English.

The invention describes an isolated human PRO polypeptide. The PRO polypeptides are useful in detecting PRO polypeptides in a sample, in linking a bicactive molecule to a cell expressing a PRO polypeptide, and in modulating at least one biological activity of a cell expressing a PRO polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus stimulate adrenal cortical capillary endochelial growth, and PRO186 stimulate adrenal cortical capillary endochelial growth, and PRO186 PRO943, PRO826, PRO168 or PRO535, PRO826, PRO196 or PRO535, PRO8166 are profited and PRO136, induce c-fos in endothelial cells, and are thus useful for treating conditions or disorders where angiogenesis would be

```
beneficial, e.g. wound healing and antagonist of this polypeptide are useful for treating cancerous tumours. PROB12 inhibits vascular canderbilal growth factor (VEGE) stimulated proliferation of endothelial cells and is thus useful for inhibiting endothelial cell growth in cells and is thus useful for inhibiting endothelial cell growth in cells and is thus useful for inhibiting tumour growth. PROB26, PRO1184, PRO1346 and PRO1375 stimulate proliferation of stimulated T-lymphocytes and are therapeutically useful for enhancing immune response. PROB26, PRO1032 is also enhances survival/proliferation of cod photoreceptor cells (PRO1132 is also enhances survival/proliferation of cod photoreceptor cells and therefore are useful for treating retinal disorders of injuries, e.g. retinitis pigmentosum, AMD. PROB19, PROB13, and therefore are useful for treating without decreased mesangial cell function such as Berger disease or other ceptropachises associated with dermatitis, herpetiformis or Crohn's disease. PRO1310, PROB44, PRO1312, PRO1322 and PRO1327 induce the codisease. PRO1310, PROB44, PRO1312, PRO1322 and PRO1327 induce the codisease. PRO1310, PROB44, PRO1312, PRO1323 and arbititis. This is the amino acid sequence of a novel human PRO protein
                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MIFFLSLLILLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVIPFKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; PRO; secreted; transmembrane; pharmaceutical; diagnostic;
                                                                                                                                                                                                                                                                                                                                                                                                                        ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 biogensor; bioreactor; tumour; therapeutic; gene therapy; tumour-associated antigenic target; TAT; ADEPT; antibody-dependent enzyme mediated prodrug therapy; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                     Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human secreted/transmembrane protein, #154.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABUS9311 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9705-0062250P
9705-006516F
9705-006511E
9705-0066770P
9805-0075945P
9805-0075945P
9805-0083322P
9805-0083322P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0087609P.
98US-0087759P.
98US-0087827P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0049787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-2001; 2001US-00997428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003027162-A1.
                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-FEB-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-MAY-1998;
02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-OCT-1997;
05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU59311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-MAY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU59311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
            à
```

IS-0088021P	IS-0088025F IS-0088026P	IS-0088028P	IS-0088029P	TS-0088030F	JS-0088326P	JS-0088167E	98US-0088202P.	IS-0088217E	JS-0088655F	JS-0088734E	JS-00887381	JS-0088810E	JS-0088824E	JS-0088826 TS-00888581	JS-0088861E	US-00888761	JS-00891051	US-00895121	US-0089514	US-00895321	US-00895381	US-00895991	US-00896001	US-00896531	T066800-SD	US-0089908	US-0089947	US-0089952	US-0090246	US-0090252	US-0090234	US-0090355	US-0090429	US-0090431 US-0090435	US-0090444	US-0090445	US-0090535	US-0090540	US-0090542 IIS-0090557	US-0090676	TIS-0090678	US-0090694	30S-0090695	3US-0090696	3080600-508	3US-0091360	3US-0091544	3US-009147	3US-0091626	3US-0091628	3US-0091633	8US-009164	8US-0091978	BUS-009198	BUS-0092182
JUN-1998	998-NOD-	00N-1998	JUN-1998	1998-NUC-	366T-NDD-	-UUL-	05-JUN-1998;	2007 - MIT.	3001-NDC-	-JUN-1998	3661-NUD-	3661-NDC-	-JUN-1998	3661-NUL-	1996T-NDD-	-JUN-1998	3661-NUL-	100N-1998	- VUIV-	961-NUD-	2007 - NDO-	966T-NDD-	-JUN-199	3661-NUL-	- 200V - 1990 - 200V - 1999	-JUN-199	-000-199	- 200N-199	-JUN-199	- NUL-199	- JUN-199	-JUN-199	-JUN-199	- JUN-199	-JUN-199	- NUL - 199	961-NUV-	-JUN-199	961-NUD-:	- VUV-199	- NUN-199	-00N-199	5-JUN-199	- JUN-199	- UDD-199	1-JUL-199	1951-195	2-100-192	2-JUL-199	2-JUL-199	2-JUL-195	2-JUL-195	7-JUL-19	7-JUL-199	9-JUL-198
PR	표 대 대	r r	PR	PR	ች ይ	PR	PR	A G	PR PR	PR	P.R.	7 7 7 8	PR	д Д	PR	PR	PR E	X X X	PR	PR	P.R.	PR	PR	PR	7. T.	PR	PR t	7 Y	PR	PR	7 B	PR	PR	PR PR	PR	P R	P.R.	PR	ሟ <u>፡</u>	PR	PR	Z Z	PR	PR	ጟ ጟ ጟ	PR	PR	¥ 5	A A	PR	PR	PR	P. P	PR	ም

18-0092472P 18-0093339 18-0094651P 18-0095282P 18-0095302P 18-0095312P 18-0095312P 18-0095321P 18-0095321P 18-0095321P 18-0096329 18-009612P	US-00561459 US-00561299 US-00967657 US-00967738 US-00967738 US-00968918 US-00968918 US-00968918 US-00968918 US-009695918 US-009695918 US-009695918 US-009702218	98US-0097971P. 98US-0097974P. 98US-0097978P. 98US-009798P. 98US-009798P. 98US-009786EP. 98US-0098614P. 98US-010654P. 98US-010654P. 98US-010654P. 98WO-US01937. 98WO-US01937. 98WO-US01937. 99WO-US01937. 99WO-US02187. 99WS-0141037P. 99WS-014598P. 99WS-014598P. 99WS-014598P. 99WS-018021547. 99WS-US021847. 99WS-US0218313.
JUL-1998 JUL-1998 AUG-1998	Add 1998	26-AUG-1998 26-AUG-1998 26-AUG-1998 26-AUG-1998 26-AUG-1998 31-AUG-1998 16-SEP-1998 17-SEP-1998 17-SEP-1998 17-SEP-1998 17-SEP-1998 17-SEP-1998 17-OED-1999 22-UEC-1999 23-UEC-1999 23-UEC-1999 23-UEC-1999 23-UEC-1999 23-UEC-1999 24-UEC-1999 25-UEC-1999 26-UEC-1999
9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4	# # # # # # # # # # # # # # # # # # #

```
2000WO-US004914.
2000WO-US005841.
2000WO-US005841.
2000WO-US005841.
2000WO-US006843.
2000WO-US006843.
2000WO-US013358.
2000WO-US01358.
2000WO-US01358.
2000WO-US014042.
2000WO-US014042.
2000WO-US01264.
98US-0088033P.
98US-0088167P.
98US-0088167P.
98US-00881212P.
98US-0088217P.
98US-0088217P.
98US-0088738P.
98US-0088738P.
98US-0088738P.
98US-0088738P.
98US-0088742P.
98US-0088742P.
98US-0088742P.
98US-0088742P.
98US-0088742P.
98US-0088742P.
98US-0088742P.
98US-0088876P.
98US-0089876P.
98US-0089512P.
98US-0089512P.
98US-0089512P.
98US-0089538P.
98US-0089538P.
98US-0089538P.
98US-0089538P.
98US-0089538P.
98US-0089538P.
                                                                                                                                                                                                                                                                                                              98WO-US019330,
98WO-US019437,
98WO-US021141,
98WO-US025108,
                                                                                                                                                                                                                                                                                                                                                                                     99WO-US021090,
99WO-US021547.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219
2000WO-US000376
2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004341
2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                 99WO-US005028
99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028634
                                                                                                                                                                                                                                                                                                                                                         99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
20-DEC-1999;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
30-MAR-2000; 3
15-MAY-2000; 2
17-MAY-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
28-JUL-2000;
                                                                                                                                              11 - JUN - 1998

11 - JUN - 1998

12 - JUN - 1998;

12 - JUN - 1998;

16 - JUN - 1998;

16 - JUN - 1998;

17 - JUN - 1998;

18 - JUN - 1998;

17 - JUN - 1998;

18 - JUN - 1998;
 04-JUN-1998;
04-JUN-1998;
05-JUN-1998;
05-JUN-1998;
05-JUN-1998;
05-JUN-1998;
09-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                            18-JUN-1998;
18-JUN-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                      LS-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                  15-SEP-1999,
30-NOV-1999,
                                                                                                                                                                                                                                                                                                                                                          05-JAN-1999
   ö
                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                         1 MIFFLSLLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKIT
                                                                                                                                                                                                                                            MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; PRO polypeptide; secreted protein; transmembrane protein; genetic disorder; antibacterial; immunosuppressive.
                                                                                                                                                                                                                         ..
                                                                                                                                                                                                   100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                    61 GKGIVKGRNIDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                   ABO26008 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0049787P.
97US-0062250P.
97US-0062186P.
97US-0065311P.
97US-0065311P.
98US-0078910P.
98US-0078910P.
98US-0078910P.
98US-0084600P.
98US-0087166P.
98US-0087166P.
98US-0087168P.
98US-008769P.
98US-008705P.
98US-0088028P.
     2000WO-US004414.
2000WO-US005914.
2000WO-US005941.
2000WO-US005319.
2000WO-US006819.
2000WO-US006814.
2000WO-US00884.
2000WO-US008439.
2000WO-US013777.
2000WO-US013705.
2000WO-US01441.
2000WO-US01441.
2000WO-US01441.
2000WO-US01441.
2000WO-US01441.
2000WO-US01441.
2000WO-US01441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-NOV-2001; 2001US-00991073
                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                            Human PRO1159 polypeptide
                                                                                                                                                                                                               Similarity 100.
90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2002127576-A1
       22-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
24-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
30-MAR-2000; 2
11-MAY-2000; 2
31-MAY-2000; 2
31-MAY-2000; 2
31-MAY-2000; 2
31-MAY-2000; 2
32-MAY-2000; 2
32-MAY-2000; 2
33-MAY-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-FEB-1598;
20-ARR-1598;
28-ARR-1998;
28-ARY-1998;
22-UN-1998;
02-UN-1998;
02-UN-1998;
04-UN-1998;
04-UN-1998;
04-UN-1998;
04-UN-1998;
04-UN-1998;
04-UN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-SEP-2002
                                                                                                                                                                                                        Query Match
Best Local S
Matches 90
                                                                                                                                                                                                                                                                                                                                                                                    ABO26008;
                                                                                                                                                                                                                                                                                                                                            RESULT 17
                                                                                                                                                                                                                                                                                                                                                     AB026008
                                                                                                                                                                                                                                                                                                                                                                \stackrel{>}{\circ}
```

```
05-SEP-2003 (first entry)
 (GETH ) GENENTECH INC.
                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                           US2003036179-A1.
                                                                                       Sequence 90 AA;
                                                                                                                                                                      Homo sapiens.
              Roy MA,
Zhang Z;
                                                                                                 Matches
                                                                                                                             AB02507
                                                                                                                                  Dp
                                                                                                               ò
                                                                                                                    셤
```

```
The present invention relates to the isolation of novel human PRO polypeptides, and the polymucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides are useful for detecting other PRO polypeptides, for linking bloactive molecules to cells expressing PRO polypeptides, for modulating concluding PRO polypeptides, and for for identifying agonists or antagonists. The polymucleotide sequences concoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene mapping, in the generation of antisense RNA and DNA, chromosome and gene mapping, in the generation probes for mapping the crow knockout animals, to construct hybridisation probes for mapping the gene which encodes the PRO polypeptide, and for the generating probes for proceed individuals with genetic disorders, in gene therapy, for chromosome condition, as chromosome markers, and for generating probes for PCR, identification, as chromosome markers, and western analysis, Southern analysis and western analysis, ABO25891-
CABO26037 represent the human PRO polypeptides of the invention. Note: The sequence data for this patent was obtained in electronic format directly from the USPTO web site at sequencegon/psipsDIDEntry.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel isolated PRO polypeptides e.g., PROB26, PRO1068, PRO1184, PRO1346 and PRO1375, which stimulate proliferation of stimulated T-lymphocytes and are therapeutically useful for enhancing immune responses.
Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ;
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Paoni NF;
Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PW, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 12; Fig 272; 661pp; English.
                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-340824/32.
N-PSDB; ACD44377.
```

98WO-US025108. 99WO-US000106. 99WO-US005028.

98WO-US019093 98WO-US019094

98WO-US018824

10-MAY-2002; 2002US-00142431

20-FEB-2003

98WO-US019437

99WO-US005190.99WO-US008615. 99WO-US010733

20-APR-1999

14-MAY-1

99WO-US020111 99WO-US020594 99WO-US020944

666

99WO-US021547 99WO-US023089

```
2000WO-US004414
2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                    99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005004
                                                                                                                                                                                                                                                                                                                             99WO-US028313
                                                                                                                                                                                                                                                                                                                                      99WO-US028409
                                                                                                                                                                                                                                                                                                                                                         99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                             99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
11-FBB-2000;
18-FBB-2000;
22-FBB-2000;
24-FBB-2000;
24-FBB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                           22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                   1999;
                                                                                                                                                                                                                                                                                                                                                                                      02-DEC-1999
Human, PRO, secreted protein; transmembrane protein; tumour; cytostatic; gene therapy; tumour necrosis factor-alpha; TNF-alpha; blood; proteoglycan; cartilage; cytokine; peripheral blood mononuclear cell; PBMC; glucose uptake; FFA; skeletal muscle cell; adipocyte cell; chondrocyte cell proliferation; chondrocyte cell differentiation; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell; A-peptide; factor VIA.
                                                                                                                                                                                                                                                                                                                                                                                                                               MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                      ch 100.0%; Score 462; DB 6; Length 90; Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human secreted/transmembrane protein (PRO) #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABO25077 standard; protein; 90 AA
```

2000WO-US030873

10-NOV-2000;

```
01-MAR. 2001; 2001W3-US006666.

09-MAR. 2001; 2001W3-US0066666.

09-MAR. 2001; 2001W3-00806689.

22-MAR. 2001; 2001W3-00816744.

05-APR. 2001; 2001W3-00816744.

10-MAY. 2001; 2001W3-00854206.

10-MAY. 2001; 2001W3-00866216.

25-MAY. 2001; 2001W3-00866216.

25-MAY. 2001; 2001W3-008660216.

25-MAY. 2001; 2001W3-00866034.
                                                                                           2001US-00872035.
2001WO-US017800.
2001US-00874503.
                                                                                                                                     2001WO-US020116.
2001WO-US021066.
                                                                                                              2001US-00882636.
2001US-00886342.
                                                                                                                                                                    2001US-00927796
                                                                                                                          2001WO-US019692
                                                                                                                                2001US-00887879
                     28-FEB-2001; 2001WO-US006520.
                                                                                                                                21-JUN-2001;
22-JUN-2001;
29-JUN-2001;
                                                                                                   01-JUN-2001;
05-JUN-2001;
                                                                                                                    19-JUN-2001;
                                                                                                                                                   09-JUL-2001;
                                                                                                                                                             06-AUG-2001;
                                                                                                                                                                          16-AUG-2001;
                                                                                              01-JUN-2001;
                                                                                                                14-JUN-2001;
```

Gao W; Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; . ME, Goddard A, Stewart TA, Tuma Beresini M, Gerritsen Smith V, Baker KP,

WPI; 2003-466355/44.

N-PSDB; ACD42031.

New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 659pp; English.

The invention relates to an isolated nucleic acid comprising at least BO% sequence identity to a PRO (secreted and transmembrane protein) cDNA comprising a nucleic acid (a) encoding a PRO polypeptide, or its comprising a nucleic acid (a) encoding a PRO polypeptide, or its comprising a nucleic acid (a) encoding a PRO polypeptide, or its which comprises any of the 275 120-850 residue amino acid sequences, which comprises any of the 275 120-850 residue amino acid sequences, given in the specification, or (c) comprising the complex of the DNA deposited under any of the American Type specification, or of the DNA deposited under any of the American Type specification, or of the DNA deposited under any of the American Type comprising the vector comprising the novel nucleic acid, a host cell also included are a vector comprising the novel nucleic acid, a host cell comprising the vector, producing a PRO polypeptide, the isolated PRO polypeptides detailed above, a chimmeric molecule comprising the PRO polypeptide, a chimmeric molecule comprising a pRO polypeptide, indulating the release of tumour necrosis the PRO polypeptide, modulating at least one biological activity of a cell expressing a PRO polypeptide, stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, (or proteoglycans from cartilage or cytokine from peripheral blood mononuclear cells (pPBMC)), cartilage or cytokine from peripheral blood mononuclear cells (pPBMC), cartilage or cytokine from peripheral blood mononuclear cells (or poliferation or differentiation of adipocyte cells, or proliferation of inner ear utricular supporting cells), stimulating the proliferation of or gene expression in pericyte cells, or of T-lymphocyte cells, or of endothelial cells, inhibiting the proliferation of adipocyte cells, or of T-lymphocyte cells, or of endothelial cells, inhibiting the proliferation of endothelial cells, inhibiting the proliferation of endothelial cells, inhibiting the proliferation of endothelial cells, inhibiting the prolifera

04-JUN-1998;

```
0
cells, detecting the presence of a tumour in a mammal and an oligonucleotide probe derived from any of the nucleotide sequences given in the specification. The polynucleotide is useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy. The polynucleotide may also be used in preparing PRO polypeptides by recombinant techniques, and in generating either transgenic animals or knock-out animals which, in turn, are useful in the development and carrening of therapeutically useful reagents. The PRO polypeptide or the antibody is used in preparing a medicament for treating a condition responsive to the polypeptide or antibody, such as tumours, and in various diagnostic assays. The present sequence rperesents a PRO
                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; PRO; secreted; transmembrane; signal peptide; pharmaceutical; diagnostic; biosensor; bioreactor; tumour; therapeutic; colon cancer; lung cancer; breast cancer; cancer; gene therapy.
                                                                                                                                                                                                                                                                                                   1 MTFFLSLLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLVCEAIWRSNSGSNTLENGYFLSRNXENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                          ..
                                                                                                                                                                                                                                          100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; rive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human sectreted/transmembrane protein, #154.
                                                                                                                                                                                                                                                                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABUS9017 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0088029P.
98US-0088030P.
98US-0088033P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0065311P.
97US-0066770P.
98US-0075945P.
98US-0078910P.
98US-0084600P.
98US-0084600P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0062250P.
97WO-US020069.
97US-0065186P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0087607P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0087759P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0088021P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0088025P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0088026P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0088028P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-NOV-2001; 2001US-00989721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-APR-2003 (first entry)
                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2002142961-A1.
                                                                                                                                                                                                                  Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-APR-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAY-1998;
02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-NOV-1997
                                                                                                                                                                                        polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABU59017;
                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABU59017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
            8X8666666666668X8
```

```
98US-008BLETP-
98US-008BLZP-
98US-008BZ17P-
98US-008BZ17P-
98US-008BZ17P-
98US-008BT34P-
98US-008BT34P-
98US-008BT34P-
98US-008BZ4P-
98US-008BZ1ZP-
98US-0089Z1ZP-
98US-0089Z1ZP-
98US-0089Z1ZP-
98US-0089Z3BP-
98US-0089Z3P-
98US-0089Z3P-
98US-0089Z3P-
98US-0089Z3P-
98US-0089Z3P-
98US-0089Z3P-
98US-0089Z3P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US015264.
2000WO-US020710.
2000WO-US022031.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US023522.
2000WO-US023328.
2000WO-US030952.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028301.
99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US004341.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005004.
2000WO-US005841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US006884.
2000WO-US007377.
2000WO-US008439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US004914.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US013358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US014042
2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US021090.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US000376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019437
98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-AUG-2000; 2
08-NOV-2000; 2
01-DEC-2000; 2
28-FEB-2001; 2
01-JUN-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-DEC-1999;
20-DEC-1999;
06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
20-MAR-2000;
15-MAR-2000;
20-MAR-2000;
215-MAR-2000;
215-MAR-2000;
215-MAR-2000;
217-MAR-2000;
21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-JUN-2000;
                                                                                                                                                                                                                     11-JUN-1998;
11-JUN-1998;
12-JUN-1998;
16-JUN-1998;
16-JUN-1998;
16-JUN-1998;
                                                                                                                                                                                                                                                                                                                                              17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JAN-1999;
08-MAR-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-NOV-1999;
                                                                                                                                     998
                                                                                                                                                                                      1998;
                                                                                                                                                                                                                                                                                                                                                                                                 17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-0CT-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-SEP-1999;
                                                                   1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JUN-1998
                                                                                                                    , 8661-NUL
                                                                                                                                                                       10-JUN-1
                                                                                                                                     -ND-01
```

```
The invention discloses isolated PRO secreted/transmembrane polypeptides comprising a sequence without signal peptide and the nucleic acid encoding them. The polypeptides can be used to raise antibodies that specifically bind to the PRO polypeptide, for linking a bioactive molecule to a cell expressing a PRO protein and for modulating at least one biological activity of a cell. The PRO polypeptides or polymucleotides are also useful as pharmaceuticals, diagnostics, biosensors or bioreactors, for detecting or treating e.g. tumours in mammals, e.g. humans, dogs, cats, cattle, horses, sheep, pigs, goats or rabbits as targets for therappeutic intervention in certain cancers (e.g. colon, lung or breast cancers) and diagnostic determination of the presence of these cancers. The PRO polypeptides are also useful as molecular weight markers or for chromosome identification. The PRO genes are useful as hybridisation probes or for servening libraries of human cDNA, particularly for replacing a defective gene. The sequences therapy, particularly for replacing a defective gene. The sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; secreted and transmembrane protein; PRO; PRO183; PRO184; PRO184; PRO184; PRO183; PRO513; PRO513; PRO513; PRO513; PRO513; PRO5130; PRO5140; P
                       Eaton DL;
d A, Godowski PJ;
                                                                                                                                                                                                                                                                          New secreted and transmembrane PRO polypeptides (e.g. PRO183, PRO184, PRO361 or PRO846) useful as targets for therapeutic intervention in cancers (e.g. lung or breast cancers), or for diagnosing these cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                  Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                    Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Baton
Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A,
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J,
Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Fig 272; 647pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABU92395 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-NOV-2001; 2001US-00993667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90; Conservative
                                                                                                                                                                                                                           WPI; 2003-155950/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003022187-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABU92395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                  Roy MA,
Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU92395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

ó

S-00497879 S-00622509 S-00621867 S-00651118 S-00653118 S-0075945P S-0075945P S-0084600P S-0084600P S-0084600P S-0084600P S-0087106F S-0087609P	9805-0088021P. 9805-0088021P. 9805-0088028P. 9805-0088028P. 9805-0088028P. 9805-0088033P. 9805-0088033P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-008812P. 9805-0088142P. 9805-0088142P. 9805-0088142P. 9805-0088142P. 9805-0088142P. 9805-008814P. 9805-008814P. 9805-008814P. 9805-008814P. 9805-008814P. 9805-008814P. 9805-008814P. 9805-008814P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-008816P. 9805-0089538P. 9805-0089538P. 9805-0089538P.	102 - 0.089947 (102 - 0.089947 (103 - 0.089948 (103 - 0.089947 (103 - 0.089947 (103 - 0.089947 (103 - 0.09025 (103 - 0.09089 (103 - 0.0908 (10
16-JUN-1997 17-OCT-1997 12-NOV-1997 13-NOV-1997 13-NOV-1997 25-FEB-1998 20-ARX-1998 28-APX-1998 28-APX-1998 02-JUN-1998 02-JUN-1998	PR 04-70N-1998; PR 05-70N-1998; PR 05-70N-1998; PR 10-70N-1998; PR 10-70N-1998; PR 10-70N-1998; PR 10-70N-1998; PR 11-70N-1998;	18-UW-199 19-JUN-199 19-JUN-199 22-JUN-199 22-JUN-199 22-JUN-199 23-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 24-JUN-199 25-JUN-199 25-JUN-199 25-JUN-199

S-0090695P S-0090696P S-0090862P S-0090863P S-0091360P S-0091519P S-0091626P S-0091628P S-0091628P	IS-0091673F IS-0091982F IS-0092182F IS-009333F IS-0094651E IS-0095318F IS-0095301E IS-0095301E IS-009531E IS-009531E IS-009531E IS-009531E IS-009631E IS-009631E IS-009631E IS-009631E IS-009631E IS-009632B	US-0096773 US-0096773 US-0096897 US-0096897 US-0096897 US-0096897 US-0096989 US-0096980 US-0096980 US-0096980 US-0096980 US-0096980 US-0096980 US-0096980 US-0096980	
25-JUN-1998 25-JUN-1998 26-JUN-1998 01-JUL-1998 02-JUL-1998 02-JUL-1998 02-JUL-1998 02-JUL-1998 02-JUL-1998	100 1998 100	17-AUG-199: 17-AUG-1999: 17-AUG-1999: 17-AUG-1999: 17-AUG-1999: 17-AUG-1999: 18-AUG-1999: 18-AUG-1999: 18-AUG-1999: 18-AUG-1999: 19-AUG-1999:	446666666666666666666666666666666666666

٠,

```
1-ND5-8
                                                                                                                                                                                                                                                                                            0-UN-1
                                                                                                                                                                                                                                                                                                                        - YON-1
                                                                                                                                                                                                                                                                                                                                                                          -NDD-
09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing; cardiac insufficiency disorder; cancer; tumour; immune response; adrenal cortical capillary endothelial growth; c-fos induction; vascular endothelial growth factor inhibition; VEGF inhibition; endothelial cell growth inhibitor; T-lymphocytes stimulation; retinal neurons cell survival; rod photoreceptor cell survival; retinal disorder; rethinits pigmentosum; kindey disorder; memamalian kidney mesangial cell proliferation; Berger disease; dermathtis; herpetiformis; Crohn's disease; chondrocyte proliferation; chondrocyte redifferentiation; sports injury; arthritis.
                                                                                                                                                                                                                                                                                                                                                               MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                            MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                        th 100.0%; Score 462; DB 6; Length 90; Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel human secreted or transmembrane protein PRO1124.
                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABUS9460 standard; protein; 90 AA
                                                                             01-DEC-1999; 99WO-US028634.
01-DEC-1999; 99WO-US028634.
01-DEC-1999; 99WO-US028634.
05-JAN-2000; 2000WO-US0030095.
06-JAN-2000; 2000WO-US00376.
11-FEB-2000; 2000WO-US00376.
12-FEB-2000; 2000WO-US004414.
24-FEB-2000; 2000WO-US004414.
24-FEB-2000; 2000WO-US004914.
24-FEB-2000; 2000WO-US006841.
15-MAR-2000; 2000WO-US006841.
15-MAR-2000; 2000WO-US006884.
20-MAR-2000; 2000WO-US006884.
15-MAR-2000; 2000WO-US006884.
15-MAR-2000; 2000WO-US006884.
20-MAR-2000; 2000WO-US006884.
20-MAR-2000; 2000WO-US006884.
30-MAR-2000; 2000WO-US006884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-NOV-2001; 2001US-00990562.
                                                           99US-0158663P.
99WO-US028313.
99WO-US028301.
 99US-0144758P.
99US-0145698P.
99US-0146222P.
99US-0149396P.
99WO-US021090.
99WO-US021547.
                                                                                                                                                                                                                                                                                   23-JUN-2000; 2000US-0213637P-28-JUL-2000; 2000WO-US020710-11-AUG-2000; 2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-APR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS2003027985-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-FEB-2003.
                                          15-SEP-1999;
15-SEP-1999;
08-OCT-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABUS 9460;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU59460
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
     à
```

```
96US-00888326P.
98US-0088818P.
98US-0088814P.
98US-00898140P.
98US-0089514P.
98US-0089514P.
98US-0089514P.
98US-0089518P.
98US-008959P.
98US-008959P.
98US-0089653P.
97US-0065111P.
97US-0065111P.
97US-0065111P.
97US-0065111P.
97US-0065111P.
98US-0078910P.
98US-0081322P.
98US-0087609P.
98US-0087759P.
98US-0087759P.
98US-0088021P.
98US-0088028P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0089947P.
98US-0089948P.
98US-0089952P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9813-00904435P
9813-0090444P
9813-0090442P
9813-0090535P
9813-0090540P
9813-0090542P
9813-0090542P
9813-0090676P
9813-0090678P
9813-0090690P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0090246P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0090429P
98US-0090431P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0090349P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
 12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
20-MAR-1998;
                                                                                                                                                                                                                       04-JUN-1998;
04-JUN-1998;
05-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                      (9661-NDD-98)
(9661-NDD-98)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                          2-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4-JUN-1998
                                                                                                                                                                                                04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                          .0-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7-JUN-1998
                                                                                                                                                  04-JUN-1998
                                                                                                                                                             04-JUN-1998
                                                                                                                                                                                                                                                                                                                                      0-JUN-1998
                                                                                                             02-JUN-1998
                                                                                                                          02-JUN-1998
                                                                                                                                      03-JUN-1998
                                                                                                                                                                                                                                                                                                                          0-JUN-1998
```

```
9805-0091519P

9805-001628P

9805-001633P

9805-001973P

9805-001973P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US000106.
99WO-US005028.
99WS-0123957P.
99WS-0141037P.
99US-0143048P.
98US-0090695P.
98US-0090696P.
98US-0090862P.
98US-0091863P.
98US-0091360P.
98US-0091344P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US025108
98US-0113296P
                                                                                                                                                                                                                                                                                                         17-AVG-1998;
17-AVG-1998;
17-AVG-1998;
17-AVG-1998;
17-AVG-1998;
18-AVG-1998;
18-AVG-1998;
18-AVG-1998;
18-AVG-1998;
18-AVG-1998;
18-AVG-1998;
18-AVG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JAN-1999;
08-MAR-1999;
12-MAR-1999;
 25-JUN-1998;
26-JUN-1998;
26-JUN-1998;
26-JUN-1998;
01-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
07-JUL-1998;
07-JUL-1998;
07-JUL-1998;
07-JUL-1998;
07-JUL-1998;
04-JUL-1998;
                                                                                                                                                                                                                     04-AUG-1998;
10-AUG-1998;
10-AUG-1998;
10-AUG-1998;
11-AUG-1998;
11-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                 19-AUG-1998;
20-AUG-1998;
24-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-1999
                                                                                                                                                                                                                                                                                          17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                          26-AUG-1998,
26-AUG-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-AUG-1998
26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-AUG-1998
16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-1998
17-SEP-1998
                                                                                                                                                                                                                                                                                  17-AUG-1998
```

```
Human; secreted protein; transmembrane protein; PRO;
inflammatory disease; organ failure; atherosclerosis; cardiac injury;
infertility; birth defects; premature aging; AIDS; biosensor;
acquired immunodeficiency syndrome; cancer; diabetic complication;
bioreactor; tumour.
                                                                                                                                                                                                                                                                                                                                                                            1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                     Length 90;
                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human secreted/transmembrane, PRO, protein SEQ ID 474
                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                     Query Match
100.0%; Score 462; DB 6;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                          GKGIVKGRNLDSRGLILGAEAWGRCVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABU67082 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US005230.
98WO-US012456.
98WO-US014888.
98WO-US018824.
98WO-US018034.
                                                                                                                                           2000WO-US00376.
2000WO-US00341.
2000WO-US004414.
2000WO-US004914.
2000WO-US006914.
2000WO-US005811.
2000WO-US005811.
2000WO-US006819.
2000WO-US006819.
2000WO-US006819.
2000WO-US006819.
2000WO-US006819.
2000WO-US008439.
2000WO-US01377.
99US-0144758P.
99US-0146222P.
99US-0146326P.
                                          99WO-US021090.
99WO-US021547.
99US-0158663P.
99WO-US028313.
                                                                                      99WO-US028634.
99WO-US028634.
99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-MAY-2002; 2002US-00137865
                                                                                                                       99WO-US030911
                                                                                                                                2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003032155-A1.
 20-JUL-1999;
26-JUL-1999;
12-SB-1999;
11-SBE-1999;
11-SEE-1999;
16-SEE-1999;
10-DEC-1999;
10-DEC-1999;
10-DEC-1999;
10-DEC-1999;
10-DEC-1999;
10-DEC-1999;
10-DEC-1999;
11-FEB-2000;
22-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
27-FEB-2000;
23-MAR-2000;
21-MAR-2000;
21-MAR-2000;
22-MAR-2000;
22-MAY-2000;
22-MAY-2000;
22-MAY-2000;
23-MAY-2000;
23-MAY-2000;
23-MAY-2000;
23-MAY-2000;
23-MAY-2000;
23-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUN-1998;
14-JUL-1998;
28-AUG-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABU67082;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU67082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                    à
```

ö

09

```
22-DEC-1999; 99W0-US030720.
22-DEC-1999; 99W0-US030720.
30-DEC-1999; 99W0-US0301274.
05-JAN-2000; 2000W0-US000219.
06-JAN-2000; 2000W0-US000219.
06-JAN-2000; 2000W0-US000376.
11-FEB-2000; 2000W0-US00376.
13-FEB-2000; 2000W0-US00341.
14-FEB-2000; 2000W0-US004414.
24-FEB-2000; 2000W0-US004414.
24-FEB-2000; 2000W0-US004914.
24-FEB-2000; 2000W0-US006414.
01-MAR-2000; 2000W0-US005601.
02-MAR-2000; 2000W0-US00581.
15-MAR-2000; 2000W0-US00581.
15-MAR-2000; 2000W0-US00581.
11-MAR-2000; 2000W0-US00581.
22-MAR-2000; 2000W0-US00581.
23-MAR-2000; 2000W0-US00581.
24-MAR-2000; 2000W0-US00881.
25-MAR-2000; 2000W0-US00881.
27-MAR-2000; 2000W0-US00881.
28-UUL-2000; 2000W0-US011491.
03-UNL-2000; 2000W0-US011491.
03-UNL-2000; 2000W0-US011491.
03-UNL-2000; 2000W0-US011491.
03-UNL-2000; 2000W0-US0114042.
03-UNL-2000; 2000W0-US0114042.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US030873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US034956.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAR-2001; 2001US-00802706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00828366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00854280
                                      98WO-US022991.
98WO-US022992.
98WO-US024855.
                                                                                                                                                                                                                                              99WO-US028634.
                                                                                                                                                                                                                                                                           99WO-US028565.
                                                                                                             99WO-US008615.99WO-US010733.
                                                                                                                                 99WO-US012252
                                                                                                                                                                                                                                   99WO-US028301
                                                                                                                                                                                                                                                      99WO-US028551
                                                                                                                                                                                                                                                                                                99WO-US030911
                                                                                                                                                                      99WO-US021090
                                                                     98WO-US025108
                                                                                         99WO-US005028
                                                                                                  99WO-US005190
                                                                                                                                                               99WO-US020944
                                                                                                                                                                                   99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-AUG-2000; 24-AUG-2000; 2 08-NOV-2000; 2 10-NOV-2000; 2 01-DEC-2000; 2 20-DEC-2000; 2
                                                                                                                                                                                                                30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
01-DEC-1999;
                                                 29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                  15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                          15-SEP-1999
```

```
18-MAY-2001; 2001US-00860216.
25-MAY-2001; 2001US-00866028.
25-MAY-2001; 2001US-00866034.
25-MAY-2001; 2001US-00866034.
01-JUN-2001; 2001US-00872035.
01-JUN-2001; 2001US-00874503.
14-JUN-2001; 2001US-00886342.
19-JUN-2001; 2001US-00886342.
20-JUN-2001; 2001US-00886342.
21-JUN-2001; 2001WS-008863636.
22-JUN-2001; 2001WS-008863636.
                                                                                               06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927796.
16-AUG-2001; 2001US-00931836.
                                                                      22-JUN-2001; 2001WO-US021016.
29-JUN-2001; 2001WO-US0217066.
09-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00908827.
                                                                                                                   19-DEC-2001; 2001US-00028072
```

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-331925/31. N-PSDB; ACA04260.

New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or cancer.

Claim 12; Fig 474; 659pp; English.

The invention relates to an isolated nucleic acid comprising, or which is at least 80% identical to, or the full-length coding sequence of, any of the 275 nucleotide sequences, encoding the corresponding PRO polypeptide (one of 275 secreted or transmembrane proteins). The nucleic acid further comprises the full-length coding sequence of the DNA deposited under the Epcification. Also included are vectors and host cells for in the specification. Also included are vectors and host cells for producing PRO proteins, methods for stimulating the release of TNF-alpha (tumour corrects factor alpha) from human blood, (and the proliferation of proteins, methods for stimulating the release of TNF-alpha (tumour corrects factor alpha) from human blood, (and the proliferation of condroverte cells, the proliferation of condroverte cells, the proliferation of condroverte cells, the release of a cytokine from cartilage, proliferation of inner an urticular supporting cells, the endothelial colls, an eathod for modulating the uptake of glucose or free proliferation of T-lymphocyte cells, an enthod for including the uptake of glucose or free condithelial cells), a method for modulating the uptake of glucose or free fatty acid (FFA) by skeletal muscle cells, a method for detecting the presence of a tumour in a mammal and oligonucleotide probe derived from any of the nucleic sequences cited bove. The nucleic acids and polypeptides are useful for treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, ADS (acquired mapping, and in generating antisense RNA or DNA. The polypeptides are useful as hybridisation probes, in chromosome and gene mapping, and in generating antisense RNA or DNA. The polypeptides are useful in tissue typing. The present sequence represents a PRO contein of the invention

Sequence 90 AA;

Gaps ·; 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; cive 0; Mismatches 0; Indels Query Match
Best Local Similarity 100.
Matches 90; Conservative

0

```
98US-0089532P.
98US-0089538P.
98US-0089538P.
98US-008959P.
98US-0089600P.
98US-0089601P.
98US-0089601P.
98US-0089947P.
98US-0089947P.
98US-0090252P.
98US-0090252P.
98US-0090252P.
98US-0090252P.
98US-0090443P.
98US-0090644P.
98US-0090648P.
98US-009162P.
98US-009162P.
98US-009164P.
98US-009164P.
98US-009164P.
98US-009164P.
98US-009143P.
98US-009143P.
98US-009531BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-AUG-1998;
11-AUG-1998;
11-AUG-1998;
12-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUL-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
07-JUL-1998;
07-JUL-1998;
09-JUL-1998;
10-JUL-1998;
20-JUL-1998;
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
18-JUN-1998;
18-JUN-1998;
19-JUN-1998;
19-JUN-1998;
                                                                                                                                                     22-JUN-1998;
22-JUN-1998;
23-JUN-1998;
23-JUN-1998;
24-JUN-1998;
                                                                                                                                                                                                                                                                                                24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                 24-JUN-1998;
                                                                                                                                                                                                                                                  24-JUN-1998;
                                                                                                                                                                                                                                                                24-JUN-1998;
                                                                                                                                                                                                                                                                          24-JUN-1998;
24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                    25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                          25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                            26-JUN-1998
                                                                                                                                                                                                                                                                                                                                                  25-JUN-1998
   9
                           9
                                                                                                                                                                                                                           Human; secreted and transmembrane protein; PRO; nootropic; neuroprotective; antiparkinsonian; cytostatic; gene therapy; chromosome mapping; gene mapping; transgenic animal; knock-out animal; neurodegenerative disorder; Parkinson's disease; Alzheimer's disease.
   MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                 Novel human secreted and transmembrane protein PRO1159.
                                                  90
                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                    ABU92226 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                   97US-0049787P.
97US-0065111P.
97US-0065111P.
97US-0065111P.
97US-0065111P.
97US-0065770P.
98US-0078912P.
98US-008710P.
98US-008710P.
98US-008710P.
98US-008702P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008802P.
98US-008803P.
                                                                                                                                                                                                                                                                                                                                                               20-NOV-2001; 2001US-00989724
                                                                                                                                                                                   16-JUL-2003 (first entry)
                                                                                                                                                                                                                                                                                                               US2003017476-A1.
                                                                                                                                                                                                                                                                                                                                                                                                           05-NOV-1997;
12-NOV-1997;
24-NOV-1997;
25-FEB-1998;
20-MAX-1998;
07-MAX-1998;
07-MAY-1998;
02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
04-JUN-1998;
05-JUN-1998;
05-JUN-1998;
                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-JUN-1998
16-JUN-1998
                                                                                                                                                                                                                                                                                                                                        23-JAN-2003
                              Н
                                                      61
                                                                                                                                                             ABU92226;
                                                                                                               RESULT 23
ABU92226
                                                                                                                                                             g
                                                      à
                                                                           g
        à
```

```
US2002123463-A1.
                                                                                                                                                                                                                                                                                                                                                                                              05-JUN-1998;
09-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                                    02-JUN-1998;
03-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                 10 - CTW - 1998;
10 - CTW - 1998;
11 - CTW - 1998;
11 - CTW - 1998;
11 - CTW - 1998;
12 - CTW - 1998;
16 - CTW - 1998;
16 - CTW - 1998;
                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                      02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                        1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUN-1998
                                                                                                                                                                                                                                                                                                                         04-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                                                                       04-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                          05-JUN-1998
05-JUN-1998
                                                                                   04-FEB-2003
                                                                                                                                                                                                                                                                                                                                                      04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                    04-JUN-1998
                                                                                                                                                                              05-SEP-2002
                                                                   ABU10932;
                   61
                                        RESULT 24
                                               ABU10932
ID ABU
                                                             ਨੇ
                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             th 100.0%; Score 462; DB 6; Length 90; Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0; Indels
98US-0096949P.
98US-0096950P.
98US-0096950P.
98US-0097022P.
98US-0097141P.
98US-0097141P.
98US-009794P.
98US-009794P.
98US-0097974P.
98US-0097974P.
98US-0097974P.
                                                                                                                                                                                                                                                                                                                    2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
                                                                                                                                                                                                                                                                                                                                        2000WO-US004414
2000WO-US004914
2000WO-US005004
2000WO-US005841
2000WO-US006819
2000WO-US006884
                                                                                                                                                                                                                         99US-0144758P.
99US-0145698P.
99US-0146222P.
                                                                                                                                                                                                                                                                   99US-0158663P.
99WO-US028313.
99WO-US028301.
                                                                                                                                                                               99WO-US000106.
99WO-US005028.
99US-0123957P.
                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US008439.
2000WO-US013358.
2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014042.
2000WO-US014941.
2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0213637P
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US023522
2000WO-US023328
                                                                                                                                                                                                                                               99US-0149396P.
                                                                                                                                            98US-0100858P.
98WO-US019437.
                                                                                                                                                          98WO-US021141.
98WO-US025108.
                                                                                                                                                                                                     99WO-US012252.
99US-0141037P.
                                                                                                                                                                                                                                                     99WO-US021090
99WO-US021547
                                                                                                                                                                                                                                                                                        99WO-US028634
                                                                                                                                                                                                                                                                                                              2000WO-US000219
                                                                                                                                                                         98US-0113296P
                                                                                                                                                                                                                   99US-0143048P
                                                                                                                                                                                                                                                                                                                                                24-FEB-2000; 2
24-FEB-2000; 2
02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
20-MAR-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                          30-MAR-2000;
15-MAY-2000;
17-MAY-2000;
                                                                                                                                                                                                                                                                                01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
20-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUN-2000;
23-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                               22-MAY-2000;
30-MAY-2000;
                           19-AUG-1998;
20-AUG-1998;
20-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                      15-SEP-1999;
15-SEP-1999;
08-OCT-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                   18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                               -JAN-1999;
        18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
                                                                                                                                            17-SEP-1998;
                                                                                                                                                          07-OCT-1998
                                                                                                                  26-AUG-1998;
                                                                                                                        31-AUG-1998,
16-SEP-1998
                                                                                                                                                                         22-DEC-1998
                                                                                                                                                                                               -MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S:
Matches 90
  à
```

```
| The control of the
```

agonists or antagonists of the PRO polypeptide, for preparing variants of PRO, as a molecular weight marker for protein electrophoresis purposes and the PRO polymucleotide is useful for recombinantly expressing those markers. The polymucleotide is also useful as a hybridisation probe, in chromosome and gene mapping, in generation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, to construct hybridisation probes for mapping the gene which encodes PRO and for the genetic analysis of individuals with genetic disorders, in gene therapy, for chromosome identification, as a chromosome marker and for generating probes for PCR, Northern analysis, Southern analysis and Western analysis. This sequence represents a human PRO polypeptide of the

nvention

```
The invention relates to a secreted and transmembrane polypeptide, termed PRO polypeptide, and the polynucleotide encoding it. The polypeptide is useful for detecting PRO polypeptides and for linking a bloactive molecule to a cell expressing the above polypeptides, where the bioactive molecule is a toxin, radiolabel or an antibody. The bioactive material causes the death of the cell. The polypeptide is useful for identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Godowski PJ;
Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eaton DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Fig 272; 655pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US006520.
2001WO-US017800.
2001WO-US019692.
                                                                                                                                                                                                                                                                                2000MO-US004341.
2000MO-US004414.
2000MO-US0049.14.
2000MO-US005004.
2000MO-US005841.
2000MO-US005819.
                                                                                                                                99WO-US005028.
99WO-US012252.
99WO-US021090.
                                 98US-0089801P.
98US-0089907P.
98US-0089908P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US023328.
2000WO-US030952.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US014941.
2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US021066.
2001WO-US021735.
                                                                                                                                                                                                                     99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US023522
                                                                                                                                                                                              99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-066810/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ABX17151.
                                                                                                                                                       15-SEP-1999;
15-SEP-1999;
10-DEC-1999;
11-FEB-2000;
11-FEB-2000;
11-FEB-2000;
11-FEB-2000;
12-FEB-2000;
12-FEB-2000;
13-FEB-2000;
14-FEB-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001;
20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-JUN-2001;
17-JUN-1998;
17-JUN-1998;
18-JUN-1998;
18-JUN-1998;
18-JUN-1998;
16-SEP-1998;
17-SEP-1998;
07-OCT-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhang
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; secreted and transmembrane protein; gene therapy; PRO; PRO943; PRO184; PRO184; PRO185; PRO313; PRO1131; PRO513; PRO1825; PRO1887; PRO1141; PRO3404; PRO1141; PRO3401; PRO946; PRO1141; PRO341; PRO946; PRO1161; PRO946; PRO16601; PRO96601; PRO96601; PRO16601; PRO96601; PRO16601; PRO1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MTPFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
                                                                                                                                                                                                                                                                                                                                                                                                Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABU81684 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9815-0075945P.
9815-0078910P.
9815-0084600P.
9815-0087106P.
9815-0087607P.
9815-0087759P.
9815-0087759P.
9815-008787P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-0049787P.
97US-0062250P.
97WO-US020069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0065186P.
97US-0065311P.
97US-0066770P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       knockout animal; septic shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2002177164-A1
                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAR-1998;
28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABU81684;
                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU81684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
ð
```

98US-0088026P

```
2000WO-US005841.
2000WO-US006319.
2000WO-US006884.
2000WO-US007377.
                98US-00880328
98US-0088328
98US-0088212P
98US-0088217P
98US-0088217P
98US-0088738P
98US-0088742P
98US-0088742P
98US-0088742P
98US-008874P
98US-0088826P
98US-0088826P
98US-0088826P
98US-0088826P
                                                                                                                                            98US-0089532P.
98US-0089538P.
98US-0089598P.
98US-0089599P.
                                                                                                                                                                     98US-0089600P.
98US-0089653P.
98US-0089801P.
                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US019692
2001WO-US021066
                                                                                                                                                                                         98US-0089907P.
                                                                                                                                                                                                     98WO-US019330
                                                                                                                                                                                                                       98WO-US025108
99WO-US000106
                                                                                                                                                                                                                                    99WO-US005028
99WO-US012252
                                                                                                                                                                                                           98WO-US019437
                                                                                                                                                                                                                   98WO-US021141
                                                                                                                                                                                                                                                       99WO-US021547
                                                                                                                                                                                                                                                                                     99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                      15-MAY-2000;
17-MAY-2000;
22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                            11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                  23-AUG-2000;
                                                                                                                                                                                                                                                15-SEP-1999;
15-SEP-1999;
30-NOV-1999;
01-DEC-1999;
01-DEC-1999;
                                                                                                                                                                                                                 07-OCT-1998;
01-DEC-1998;
05-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                        18-JUN-1998;
18-JUN-1998;
16-SEP-1998;
17-SEP-1998;
                                          05-JUN-1998;
05-JUN-1998;
09-JUN-1998;
                                                                                                        11-JUN-1998;
11-JUN-1998;
                                                                                                                                                          17-JUN-1998;
                                                                                                                                                                      17-7UN-1998
                              05-JUN-1998;
                                                                          10-JUN-1998
                                                                                                                                  6-JUN-1998
                                                                                                                                             7-7UN-1998
                                                              10-JUN-1998
                                                                    10-JUN-1998
                                                                                            10-JUN-1998
                                                                                                    11-JUN-1998
```

```
The invention describes an isolated, secreted and transmembrane polypeptide (I), termed PRO polypeptide. (I) is useful for detecting probable. PRO1813, PRO1814, PRO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09
                                                                                                                                                                                                                                                                                                                                                         New secreted and transmembrane polypeptide, useful for modulating biological activity of cell expressing the polypeptide, for identifying agonists or antagonists of polypeptide, and as molecular weight markers.
                                                                                                                             DL;
Gođowski PJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                              Paoni NF;
Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; gene therapy; cancer; retinal disorder; wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 90;
                                                                                                                             Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton
Ferrara M, Rong S, Gerber H, Gerritsen ME, Goddard A,
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J,
Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human secreted and transmembrane polypeptide PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABU88623 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 12; Fig 272; 654pp; English.
09-JUL-2001; 2001WO-US021735.
28-AUG-2001; 2001US-00941992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-AUG-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                     WPI; 2003-328481/31.
N-PSDB; ACA68006.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  kidney disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2002197615-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU88623;
                                                                                                                                                                                                                                    Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 26
```

0

33

us-09-989-293a-377.junl.rag

```
98US-0088028P

98US-0088029P

98US-0088029P

98US-0088030P

98US-0088127P

98US-0088127P

98US-0088217P

98US-0088217P

98US-0088217P

98US-008863SP

98US-0089533P

98US-0089533P

98US-0089533P

98US-0089533P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US021547.
99WO-US028313.
99WO-US028301.
                                                                                                                                                                                       98US-0084600F
98US-0087106F
98US-0087607F
98US-0087759F
98US-0087759F
98US-0088021F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019437.
98WO-US021141.
98WO-US025108.
                                                                   97US-0062250P.
97WG-0065186P.
97US-0065186P.
97US-0066770P.
98US-0075945P.
98US-0075945P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000219.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004341.
2000WO-US004414.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0089907P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0089908P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US005028
                          16-NOV-2001; 2001US-00991181
26-DEC-2002
```

```
Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton
Ferrara N, Fong S, Gerber H, Gerritesn ME, Goddard A,
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J,
ROY MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                       2000WO-US007377.
2000WO-US008439.
2000WO-US013358.
2000WO-US013705.
2000WO-US014042.
                                                                                                                                             2001WO-US006520.
                                                                               2000WO-US014941.
2000WO-US015264.
                                                                                                      2000WO-US022031.
2000WO-US023522.
                                                                                                                       2000WO-US023328
                        2000WO-US006319.
2000WO-US006884.
                                                                                                                                                                              2001WO-US021735
                                                                                                                                                                                     2001US-00941992
                                                                                                                                                                                                     (GETH ) GENENTECH INC.
24-FBB-2000; 2
24-FBB-2000; 2
02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
20-MAR-2000; 2
15-MAY-2000; 2
11-MAY-2000; 2
                                                                       22-MAY-2000; 2
30-MAY-2000; 2
02-JUN-2000; 2
                                                                                               28-JUL-2000; 2
11-AUG-2000; 2
23-AUG-2000; 2
                                                                                                                                                     01-JUN-2001;
20-JUN-2001;
29-JUN-2001;
                                                                                                                      24-AUG-2000;
08-NOV-2000;
01-DEC-2000;
28-FEB-2001;
                                                                                                                                                                              09-JUL-2001;
28-AUG-2001;
                                                                                                                                                                                                                                                     Zhang Z;
```

New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for the preparation of a medicament for treating a condition that is responsive to the PRO polypeptide. e.g., cancer. N-PSDB; ACA88455

WPI; 2003-370792/35.

J, Baton DL;
ddard A, Godowski PJ;
Pan J, Paoni NF;
- PM. Wood WI;

Claim 12; Fig 272; 647pp; English.

The invention relates to an isolated nucleic acid encoding a PRO polypeptide, agonist, antagonist and antibody are useful for the preparation of a medicament for treating a condition that is responsive to the PRO polypeptide. The nucleotide sequence is useful in molecular biology including being used as hybridisation probes, in chromosome and gene mapping and in the generation of anti-sense RNA and DNA. The PRO polypeptides can also be used in the treatment of e.g. cancer, retinal disorders, wound healing and kidney disorders. The present sequence represents the amino acid sequence of a human secreted and transmembrane PRO polypeptide of the present invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at seqdata.uspto.gov/sequence.html?DocID=20020197615

Sequence 90 AA;

0, 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; Ative 0; Mismatches 0; Indels 90; Conservative Query Match Best Local Similarity Best Loca Matches

> ð 셤 ਨੋ g

- 61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
- 90

RESULT 27 ABO34137

```
98US-0090246P.
98US-0090244P.
98US-0090343P.
98US-0090431P.
98US-0090431P.
98US-0090431P.
98US-0090431P.
98US-0090441P.
98US-0090442P.
98US-0090442P.
98US-0090442P.
98US-0090442P.
98US-0090642P.
98US-0090643P.
98US-0090643P.
98US-0090631P.
98US-0090631P.
98US-0090631P.
98US-0090631P.
98US-009163P.
98US-009631P.
98US-009731P.
98US-009731P.
98US-009731P.
 98US-0089952P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
19-AUG-1998;
20-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
19-JUN-1998;
22-JUN-1998;
22-JUN-1998;
23-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                                10-JUL-1998;
20-JUL-1998;
30-JUL-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                     11-AUG-1998;
12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                       9999
                                                                                                                                                                                                    26-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                               11-AUG-1998
                                                                                                                                                                           25-JUN-1998
                                                                                                                                                                                   25-JUN-1998
                                                                                                                                                                                             26-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                     10-AUG-19
10-AUG-19
10-AUG-19
                                                                                                                                                                                                                                                                                                                                                            04-AUG-1
  Human; PRO polypeptide; secreted protein; transmembrane protein; biosensor; bioreactor; tumour; cancer; diabetes; ALS; ulcer; rheumatoid arthritis; amyotrophic lateral sclerosis; cytostatic; antidiabetic; antiatrthritic; antirheumatic; antiulcer.
     ABO34137 standard; protein; 90 AA
                                                                                                                                                                                     9705-0049787P.
9705-0062250P.
9705-006511BP.
9705-006511BP.
9705-006511BP.
9705-006511BP.
9805-0078910P.
9805-0078910P.
9805-0087106P.
9805-0087106P.
9805-0088028P.
9805-0089078P.
9805-0089512P.
9805-0089512P.
9805-0089512P.
9805-0089512P.
9805-0089512P.
9805-0089512P.
                                                                                                                                                                      20-NOV-2001; 2001US-00989728
                                        (first entry)
                                                        Human PRO1159 polypeptide
                                                                                                                                    US2003017981-A1.
                                                                                                                                                                                                17-OCT-1997)
05-NOV-1997)
12-NOV-1997)
13-NOV-1997)
24-NOV-1998)
20-MAR-1998)
26-MAR-1998)
28-MAY-1998)
02-UN-1998)
02-UN-1998)
04-UN-1998)
04-UN-1998)
04-UN-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-JUN-1998;
16-JUN-1998;
16-JUN-1998;
17-JUN-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                04 - 70N - 1998

04 - 70N - 1998

05 - 70N - 1998

10 - 70N - 1998

11 - 70N - 1998
                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-JUN-1998;
                                        19-SEP-2003
                                                                                                                                                     23-JAN-2003
                       ABO34137;
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 462; DB 6;
llarity 100.0%; Pred. No. 9.8e-49;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US030952.
2000WO-US032678.
2001WO-US006520.
                                                                                                                                                                                                                                                                                                                                                                      2000WO-US015264.
2000US-0213637P.
                                                                                                                                                                                  99US-0158663P.
99WO-US028313.
                                                                                                                                                                                                                           99WO-US030911
                                                                                                                                                                                                                                                   2000WO-US003565.
                                                                                                                                                                                                                                                                    2000WO-US004414.
2000WO-US004914.
                                                                                                                                                                                                                                                                                              2000WO-US005841
                                                                                                                                                                                                                                                                                                      2000WO-US006319
                                                                                                                                                                                                                                                                                                              2000WO-US006884
                                                                                                                                                                                                                                                                                                                      2000WO-US007377.
                                                                                                                                                                                                                                                                                                                                               2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US022031
2000WO-US023522
                                                                                        99WO-US005028.
                                                                                                         99WO-US012252.
99US-0141037P.
                                                                                                                                         99US-0145698P
                                                                                                                                                                   99WO-US021090
                                                        98WO-US021141.
98WO-US025108.
                                                                                                                         99US-0143048P
                                                                                                                                  99US-0144758P
                                                                                                                                                           99US-0149396P
                                                                                                                                                                                                           99WO-US028634
                                                                                                                                                                                                                    99WO-US030095
                                                                                 99WO-US000106
                                       98US-0100858P
                                                 98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                     10-MAR-2000; 2
15-MAR-2000; 2
20-MAR-2000; 2
30-MAR-2000; 2
15-MAY-2000; 2
17-MAY-2000; 2
22-MAY-2000; 2
                                                                                                                                                         17-AUG-1999;
15-SEP-1999;
08-OCT-1999;
01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
16-DEC-1999;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                            18-FEB-2000; 2
22-FEB-2000; 2
24-FEB-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                       28-JUL-2000;
                                                                                                                                                                                                                                                                                     24-FEB-2000;
                                                                                                                                                                                                                                                                                               02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                               30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2000;
                              16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
07-OCT-1998;
01-DEC-1998;
                                                                       22-DEC-1998;
05-JAN-1999;
08-MAR-1999;
12-MAR-1999;
02-JUN-1999;
                                                                                                                                                    28-JUL-1999
                                                                                                                 23-JUN-1999
07-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
```

ADA45993 standard; protein; 90 AA.

RESULT 28
ADA45993
ID ADA4
XX
AC ADA4

ADA45993;

```
Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; FRA uptake modulator; oell proliferation stimulator; cell differentiation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; lung tumour; cloon tumour; breast tumour; prostate tumour; rectal tumour; ervical tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                         Novel human secreted and transmembrane protein PRO1159
                                             Human; secreted and transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US004914.
2000WO-US005004.
2000WO-US005601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US003565.
2000WO-US004341.
2000WO-US004342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                          99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                             99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US030911
                                                                                                                                                                                                                                                              98WO-US019094
                                                                                                                                                                                                                                                                        98WO-US019177
                                                                                                                                                                                                                                                                                                                      98WO-US022992
                                                                                                                                                                                                                                                                                                                              98WO-US024855
                                                                                                                                                                                                                                                                                                                                        98WO-US025108
                                                                                                                                                                                                                                                                                                                                                 99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028634
                                                                                                                                                                                                                                                                                          98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028551
        (first entry)
                                                                                                                                                 US2003022328-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                 07-OCT-1998;
29-OCT-1998;
29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-DEC-1999;
20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-2000;
                                                                                                                                Homo sapiens.
                                                                                                                                                                                     16-APR-2002;
                                                                                                                                                                                                                                                                                                                                                          1999;
                                                                                                                                                                                                                                                                                                                                                                             :666
                                                                                                                                                                                                                                                                                                                                                                                      666
                                                                                                                                                                                                                                                                                                                                                                                              666
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999;
                                                                                                                                                                                                                                                                                                                                                                   0-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                                                                                                                                                           999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L6-DEC-1999
        20-NOV-2003
                                                                                                                                                                    30-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                     14-MAY-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-NOV-19
                                                                                                                                                                                                                                                                                                                                                                                                                 -SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                   5-SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                             -SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                      -0CI-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -DEC-
```

```
01-JUN-2001, 2001M2-00872035.

01-JUN-2001, 2001W2-008745035.

01-JUN-2001, 2001W2-0084503.

14-JUN-2001, 2001W2-00886342.

19-JUN-2001, 2001W2-00886342.

20-JUN-2001, 2001W2-00887879.

22-JUN-2001, 2001W2-00807795.

09-JUL-2001, 2001W2-00502106.

09-JUL-2001, 2001W2-00921735.

18-JUL-2001, 2001W2-009287796.

09-AUG-2001, 2001US-009287796.
                                                                                                                                                                                                2001US-00828366.
2001US-00854208.
2001US-00854280.
2001US-00860216.
                                                                                                                                                                                                                              2001US-00866028.
2001US-00866034.
2001WO-US017092.
                                                                                                                                                                           2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                                                                                                                                       16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                   2001WO-US006666.
                                                                                                                                                                                          2001US-00816744.
                                                                                                                                            2000WO-US034956
                                                                                                2000WO-US023522
                                                                                                                                                                                                        10-MAY-2001;
10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                            20-MAR-2000;
21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
                                                                                                                                                    28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
                                                                                                                                                                           09-MAR-2001;
14-MAR-2001;
22-MAR-2001;
05-APR-2001;
                                                                         02-JUN-2000;
28-JUL-2000;
11-AUG-2000;
                                                                                               23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
                                                                                                                                                                                                                                               25-MAY-2001;
                                                                                                                                      20-DEC-2000;
                                                                                                                                              20-DEC-2000;
                     .5-MAR-2000;
```

Gao W; Deforge L, Desnoyers L, Filvaroff E, G. A, Godowski DJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, E, Goddard Stewart TA, Gerritsen ME, Smith V, Stewa Baker KP,

WPI; 2003-584997/55. N-PSDB; ADA45992

Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.

Claim 12; Fig 474; 659pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FPA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the release of proteoglycans from cartilage for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of Inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating

```
the release of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for simulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, corporate, rectal, cervical or liver tumour. The oligonucleotide probes contisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome cond gene mapping, in generation of antisense RNA and DNA, in the creation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and concours ing of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating corposes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g. detecting its expression in specific cells, this suse or serum, and for sources. (I) and (II) are useful for tissue typing. This is the amino concourses. (I) and (II) are useful for tissue typing. This is the amino concourse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTGSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLUCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

ADA76424 standard; protein; 90 (first entry) 20-NOV-2003 ADA76424

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour cancer; adrenal; unog; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell; adipocyte cell; pericyte cell; sports injury; proteoglycan; articular cartilage disorder; sports injury; proteoglycan; articular cartilage defect; ostecarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Ното варіелв.

US2003073212-A1. 17-APR-2003 16-APR-2002; 2002US-00123903

98WO-US012456 98WO-US014552 98WO-US017888. 98WO-US019093 98WO-US019094 97WO-US005230 14-SEP-1998; 14-SEP-1998; 14-SEP-1998; 10-SEP-1998; 12-JUN-1998; 28-AUG-1998 A CONTRACTOR OF THE STATE OF TH

98WO-US019177

```
2001US-00816744
                                                                                                                                                                                                                                                      2000WO-US004341.
2000WO-US004342.
                                                                                                                                                                                                                                                                                       2000WO-US005601.
                                                                                                                                                                                                                                                                                                                                                                2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00860216
                                                                                                                                                                                                                                       2000WO-US000376
                                                                                                                                                                                                                                                                          2000WO-US004914
                                                                                                                                                                                                                                                                                 2000WO-US005004
                                                                                                                                                                                                                                                                                                   2000WO-US005841
                                                                                                                                                         99WO-US028634
                                                                                                                                                                                                                                               2000WO-US003565
                                                                                                                               99WO-US028214
                                                                                                                                           99WO-US028409
                                                                                                                                                                99WO-US028551
                                                                                                                                                                             99WO-US028565
                                                                                                                                                                                                 99WO-US030999
                           98WO-US022992
98WO-US024855
                                        98WO-US025108
                                              99WO-US000106
                                                      99WO-US005028
                                                                   99WO-US008615
                                                                                99WO-US012252
                                                                                       99WO-US020111
                                                                                                     99WO-US020944
                                                                                                           99WO-US021090
                                                                                                                 99WO-US021547
                                                                                                                                     99WO-US028313
                                                                                                                                                  99WO-US028301
                                                                                                                                                                      99WO-US028564
                                                                                                                                                                                           99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-MAY-2001;
                                                                                                                                                                                                20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                   23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                     20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                          28-FEB-2001;
                                                                                                                                                 01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                02-JJN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                              -DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-MAR-2001;
16-SEP-1998;
17-SEP-1998;
07-OCT-1998;
29-OCT-1998;
29-OCT-1998;
20-NOV-1998;
                                              05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
20-APR-1999;
                                                                                                                 15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                          30-MAY-2000;
                                                                                                                                                                                                                     30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                   06-JAN-2000;
                                                                                                           1999;
                                                                                                                                                                                    16-DEC-1999;
20-DEC-1999;
                                                                                                                                     30-NOV-1999
                                        01-DEC-1998;
                                                                         14-MAY-1999
                                                                                       11-SEP-1999
                                                                                               -SEP-
                                                                                                            15-SEP-
```

```
2001US-00872035.
2001WO-US017800.
                                                                06-AUG-2001; 2001US-00924419
09-AUG-2001; 2001US-00927796
                                                                          L6-AUG-2001; 2001US-00931836
19-DEC-2001; 2001US-00028072
   2001US-00866034.
2001WO-US017092.
                      2001US-00874503
2001US-00882636
                                2001US-00886342
                                         2001US-00887879
                                              2001WO-US020116
                                                       2001WO-US021735
                                                            2001US-00908827
                                    2001WO-US019692
                                                   2001WO-US021066
                      05-JUN-2001;
                                19-JUN-2001;
                                         21-JUN-2001;
                                                  29-JUN-2001;
   25-MAY-2001;
25-MAY-2001;
                  01-JUN-2001;
                                     20-JUN-2001;
                                              22-JUN-2001;
             01-JUN-2001;
```

(GETH) GENENTECH INC.

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, Game, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, Gerritsen ME Smith V,

WPI; 2003-687639/65. N-PSDB; ADA76423

New isolated nucleic acid encoding a secreted and transmembrane polypeptide, designated e.g. PRO1114 or PRO4978, useful in chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 659pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adremal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology in cluding uses as to polymucleotides are useful in molecular biology, in generating to polymucleotides may also this sase. The presence of a tumours in the polymorphides of a the polymorphides are useful in molecular biology, including uses as conserving the presence of a tumours, for antibodies are used in preparing of the development and screening of therapputically useful activity of the proliferation of a tumours, for stimulating and inhibiting proliferation of multiodies, such as tumours, for stimulating and inhibiting proliferation of inner ear utricular supporting and inhibiting proliferation of inner ear utricular supporting cells, for stimulating differentiation of angipocyte cells, for stimulating cells are useful for treating ear useful for treating sorter such as sports injuries and cartingles are useful for treating various mammalian hammorphy proliferation. Confine and propertied of streating sorters ear utricular cartilage are useful for treating various mammalian hammoglobin-colls, for menhanced local immune system cell propending confidence associated disorders such as various thalassaemias and conditions which confidence represents a human PRO polypeptide of the invention. Note: The sequence expresents a human PRO polypeptide of the invention of or sequence cropics associated for this parent is also available in electronic format from two various pagenence are presents a purpor this pagen

Sequence 90 AA;

0 Query Match
100.0%; Score 462; DB 6; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0; Indels

ó

Gaps

```
New PRO nucleic acid, useful for preparing a composition for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e.g., tumors.
9
                     9
                                                                                                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TMP-alpha; blood; chondrocyte cell; lung; colon; breast; prostate; rectum; cervix; liver; tumour; cancer; glucose uptake; FRA; adipocyte cell; pericyte cell; proteoglycan; cartilage; inner ear utricular supporting cell; cytokine; A-peptide; factor VIIA; endothelial cell.
      MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
              1 MIPFLSLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                            GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                      ADA19074 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US023089.
99WO-US028214.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US030095.
99WO-US030911.
99WO-US030999.
                                                                                                                                                                                                                                                                                                                                        98WO-US022991.
98WO-US022992.
98WO-US024855.
                                                                                                                                                                                                                                                                                              98WO-US019093.
98WO-US019094.
98WO-US019177.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US020944.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028409.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028564.
                                                                                                                                                                                                                                                                               98WO-US017888
98WO-US018824
                                                                                                                                                                                                                                                                                                                    98WO-US019330
                                                                                                                                                                                                                                                                                                                           98WO-US019437
98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                           99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                           99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028551
                                                                                                                                                                                                                                            08-MAY-2002; 2002US-00141755
                                                                                                                                                                                                                                                                                                                                                              98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                     99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US020594
                                                                                                                                  Human PRO polypeptide #237
                                                                                                                    20-NOV-2003 (first entry)
                                                                                                                                                                                                                US2003054517-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                           15-SEP-1999)

05-007-1999

30-N0V-1999

30-N0V-1999

01-DEC-1999

02-DEC-1999

02-DEC-1999

02-DEC-1999

16-DEC-1999

20-DEC-1999

20-DEC-1999

20-DEC-1999

20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                         20-APR-1999;
14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
08-SEP-1999;
                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                             14-SEP-1998
14-SEP-1998
14-SEP-1998
16-SEP-1998
17-OCT-1998
29-OCT-1998
29-OCT-1998
10-CT-1998
10-CT-1998
10-CT-1998
10-CT-1998
10-CT-1999
10-CT-1999
10-CT-1999
10-CT-1999
                                                                                                                                                                                                                                                                                 28-AUG-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                              13-SEP-1999
                                                                                                                                                                                                                                                          31-MAR-1997
12-JUN-1998
                                                                                                                                                                                                                              20-MAR-2003
                                                                                                    ADA19074;
          _
                                     61
                                                                         RESULT 30
                                                                                 ADA1907
                                                                                              g
                                                   셤
          à
                                      ð
```

```
Filvaroff E, Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Deforge L, Desnoyers L, Filvaroff E, A, Godowski PJ, Gurney AL, Sherwood S Tumas D, Watanabe CK, Wood WI, Zhang
                                                                                                                                                                                                                   2000MO-US005841.
2000MO-US005119.
2000MO-US007377.
2000MO-US007377.
2000MO-US00737.
2000MO-US004439.
2000MO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US023522.
2000WO-US023328.
2000WO-US030952.
2000WO-US030873.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00816744.
2001US-00828366.
2001US-00854208.
2001US-00854280.
             99WO-US031243.
99WO-US031274.
2000WO-US000219.
2000WO-US000277.
2000WO-US000376.
2000WO-US003565.
                                                                                                                                         2000WO-US004414.
2000WO-US004914.
2000WO-US005004.
2000WO-US005601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00866028.
2001US-00866034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00882636.
2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00908827.
06-AUG-2001; 2001US-00927419.
09-AUG-2001; 2001US-00927796.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US006666.
2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00872035.
2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US034956.
2001US-00796498.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00860216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US020116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP, Beresini M,
Gerritsen ME, Goddard
Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-521854/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ADA19073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
201-JUN-2001;
201-JUN-2001;
201-JUN-2001;
201-JUN-2001;
201-JUN-2001;
201-JUN-2001;
201-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001; 2
09-MAR-2001; 2
14-MAR-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-APR-2001; 2
10-MAY-2001; 2
10-MAY-2001; 2
18-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUN-2001; 2
22-JUN-2001; 2
29-JUN-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                               11-AUG-2000;
23-AUG-2000;
24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2000;
20-DEC-2000;
20-DEC-2000;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
11-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
02-MAR-2000;
02-MAR-2000;
115-MAR-2000;
115-MAR-2000;
20-MAR-2000;
20-MAR-2000;
20-MAR-2000;
20-MAR-2000;
20-MAR-2000;
20-MAR-2000;
20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-AUG-2001;
19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-FEB-2001;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                  02-JUN-2000;
28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                              08-NOV-2000;
10-NOV-2000;
```

Gao

```
2000WO-US023328
2000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US005841
                                                                                                                                                                                                                                                                                   98WO-US025108
99WO-US000106
                                                                                                                                                                                                                                                                                                               99WO-US005028
                                                                                                                                                                                                                                                                                                                                           99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                     99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028551
                                                                                                                          98WO-US017888
98WO-US018824
                                                                                                                                                                    98WO-US019094
                                                                                                                                                                                                                                                        98WO-US022992
                                                                                                                                                                                                                                                                                                                                                          99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                      99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US020944
                                                        2002US-00123262
                                                                                                                                                                                                                                                                     98WO-US024855
US2003049816-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .8-FEB-2000;
                                                        15-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0-DEC-1999;
                                                                                                                                                                                                                                                                                                                             1999;
                                                                                                                                                                                                                                                                                                                                            :6661
                                                                                                                                                                                                                                                                                                                                                                                                 08-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEC-1999,
                                                                                                                                                                                                                                                                                                                                                                                                                                            5-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-DEC-1999
                             13-MAR-2003
                                                                                                                                                                                                                                                                                                                             10-MAR-19
20-APR-19
  The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpa (TMP-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for correcting the presence of a tumour in a mammal (e.g. hung, colon, breast, cervical and liver tumours). The polynucleotides are useful in molecular blology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in come to be mapping of the polymore of the polymore of the polypeptides by recombinant techniques and in generating fither transgenic animals or knock-out animals which are useful in the polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the complement and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such the uptake of glucose or PRA by adipocyte cells, for stimulating the release of groteoglycans from pericyte cells, for stimulating the release of proteoglycans from pericyte cells, for stimulating the release of cytokines from PBMC colls, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence them.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TWF-alpha release;
Jucose uptake modulator;
glucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA61697 standard; protein; 90 AA.
                    Claim 12; Fig 474; 660pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADA61697;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein.
PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 31
ADA61697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

```
10-NOV-2000; 2000WO-US030873.
01-DBGC-2000; 2000WO-US032678.
20-DBC-2000; 2000WO-US032678.
20-DBC-2000; 2000WO-US034956.
28-FEB-2001; 2001WS-00796498.
28-FEB-2001; 2001WS-007966520.
01-MAR-2001; 2001WS-008066689.
22-MAR-2001; 2001WS-00806669.
22-MAR-2001; 2001WS-00816744.
05-APR-2001; 2001WS-00854208.
10-MAY-2001; 2001WS-00854208.
118-MAY-2001; 2001WS-00866218.
25-MAY-2001; 2001WS-008660218.
25-MAY-2001; 2001WS-00866028.
25-MAY-2001; 2001WS-00866028.
25-MAY-2001; 2001WS-00866034.
25-MAY-2001; 2001WS-00866034.
                                                                                                                                                                         14-UUN-2001; 2001US-00882636.

19-UUN-2001; 2001US-00886342.

20-UUN-2001; 2001US-00887879.

22-UUN-2001; 2001US-00887879.

22-UUN-2001; 2001WO-US020116.
                                                                                                                                                                2001US-00874503.
2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                           09-JUL-2001; 2001WO-US021735
18-JUL-2001; 2001US-00908827
06-AUG-2001; 2001US-00924419
                                                                                                                                                                                                                                                   2001US-00927796
                                                                                                                                                                                                                                                             01US-00931836
                                                                                                                                                                                                                                                              16-AUG-2001; 2001US-00931836
19-DEC-2001; 2001US-00028072
                                                                                                                                                         2001WO-US017800
                                                                                                                                                                                                                                                    09-AUG-2001;
                                                                                                                                                                 05-JUN-2001;
```

(GETH) GENENTECH INC.

Gao W; Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G: Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-695892/66. N-PSDB; ADA61696

New PRO nucleic acid and encode polypeptides, are useful for manufacturing a medicament for diagnosing or treating cancer

Claim 12; Fig 474; 660pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (11. (1) is useful for stimulating the transmembrane) polypeptides (11. (1) is useful for stimulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for calcase of FRA by skeletal muscle cells or adipocyte cells, for calmulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating of a cytokine from PBMC cells, for inhibiting the binding of the release of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, color streetal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDNA nucleotide sequences or ancisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding increaction. A polyuncleotide (II) encoding (I) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the correction of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating cromosome identification, as chromosome marker, and for generating cromosome identification, as chromosome marker, and for generating cromosome identification in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural

99WO-US028409

```
ó
                                                                                                                                            9
sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide.
                                                                                                                                  1 MTFFLSLILILVCBAIWRSNGGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                        1 MTFFLSLILLLUVCBAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                   Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inihibitor; cytokine releas.
                                                                                                   0
                                                                            Length 90;
                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                               Novel human secreted and transmembrane protein PRO1159.
                                                                           100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
live 0; Mismatches 0;
                                                                                                                                                                   90
                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNŢ
                                                                                                                                                                                                                                              ADB19482 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US014552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9BWO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90T000SD-0M66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US020111
                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                   90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -0M86
                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                          US2003068796-A1
                                                       Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-MAR-1999;
10-MAR-1999;
20-APR-1999;
                                                                                                                                                                                                                                                                                          20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-SEP-1998;
07-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                10-APR-2003
                                                                                                                                                                                                                                                                    ADB19482;
                                                                                                                                                                                                                         RESULT 32
                                                                                                  Matches
                                                                                                                                                                                                                                    ADB19482
                                                                                                                                                                                                                                                                    d
            222233
                                                                                                                                             d
                                                                                                                                                                    ठे
```

Sherwood S; II, Zhang Z;

Gurney AL, She e CK, Wood WI,

Godowski PJ, Gurne 15 D, Watanabe CK,

Goddard A, Godow

Stewart TA,

Gerritsen ME, Smith V, Ste

WPI; 2003-695927/66.

N-PSDB; ADB19481

Novel secreted and transmembrane PRO polypeptides useful for stimulating the release of tumor necrosis factor alpha and detecting the presence of

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyt

Claim 12; Fig 474; 660pp; English

tumor in a mammal.

0;

0; Gaps

Length 90; Indels

100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0;

Query Match Best Local Similarity 100. Matches 90; Conservative

Sequence 90 AA;

```
2001US-00B54208.
2001US-00B54280.
2001US-00B60216.
2001US-00B66028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-US020116.
2001WO-US021066.
2001WO-US021735.
                                                                                                                                              2000WO-US004342.
2000WO-US004414.
2000WO-US004914.
2000WO-US005004.
                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US006666.
2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-US019692.
2001US-00887879.
                          99WO-US028564.
99WO-US028565.
99WO-US030095.
                                                                                                                                                                                                                                                         2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00816744.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00866034.
2001WO-US017092.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00908827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00924419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      001US-00931836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-DEC-2001; 2001US-00028072
99WO-US028301.
99WO-US028634.
99WO-US028551.
                                                                                                                                                                                  2000WO-US005601.
2000WO-US005746.
2000WO-US005841.
                                                                                                                                                                                                            2000WO-US006319.
                                                                                                                                                                                                                                       2000WO-US007532
                                                                                                                                                                                                                                                  2000WO-US008439
                                                                                                                                                                                                                                                                                     2000WO-US015264
                                                                                                                                                                                                                                                                                              2000WO-US020710.
                                                                                                                                                                                                                                                                                                                       2000WO-US023328.
2000WO-US030952.
                                                                                                                                                                                                                                                                                                                                           2000WO-US030873.
                                                                                                                                                                                                                                                                                                                                                   2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                             2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                     2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                               2001US-0079649B
                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00872035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001WO-US017800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00874503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00927796
                                                                        99WO-US030720.
                                                     99WO-US030911
                                                                99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC
                                                                                                                                                               24 - FEB - 2000;
24 - FEB - 2000;
24 - FEB - 2000;
02 - MAR - 2000;
10 - MAR - 2000;
11 - MAR - 2000;
20 - MAR - 2000;
21 - MAR - 2000;
22 - MAY - 2000;
30 - MAY - 2000;
30 - MAY - 2000;
22 - MAY - 2000;
23 - MAY - 2000;
24 - JUL - 2000;
28 - JUL - 2000;
                                                                                                                                                                                                                                                                                                                                                                                                        09-MAR-2001;
14-MAR-2001;
22-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
                                                                                                                   06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
                                                                      22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001;
01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUN-2001;
14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JUN-2001;
                                                                                                                                                                                                                                                                                                       11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                        24-AUG-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                           10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                    05-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JUL-2001;
01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                     01-DEC-2000;
```

```
9
                                                                                                                                                                                                                                                                                                            Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sports injury; proteoglycan; arricular cartilage disorder; sports injury; proteoglycan; arricular cartilage defect; osteoarthritis; rheumatoid arrhritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ·.
Z
1 MTFFLSLLLLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G:
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                     GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                    Ā
                                                                                                                                                                                  ADB28023 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-DEC-1999; 99US-0170262P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-APR-2002; 2002US-00131819.
                                                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-765415/72.
N-PSDB; ADB28022.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003082704-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                   20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-2003
                                                                                                                                                                                                                    ADB28023;
                                                                      61
                                                                                                                                                                   ADB28023
                                                                                                                                                                                                                      g
                                                                      à
                                                                                                   g
        à
```

.. Z Gao

Filvaroff E,

Desnoyers L,

Deforge L,

Beresini M,

Baker KP,

X##X#X99999999999999999999999999999

New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated numban PANO polypeptides (Secretae adult cransmembrane polypeptides) and the polymucleotides encoding then. The invention also relates to an antibody which specifically binds to a PRO pulypeptide a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The opportation probes, in chromosome and gene mapping, in generating artisense RNA and in gene therapy. The polymucleotides may also artisense RNA and bNA and in gene therapy. The polymucleotides may also be used in preparing PNO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful.

Compared to the proparing and condition responsive to the polypeptides or artibodies, such as tumours, for stimulating and inhibiting proliferation of or gene expression in perioque cells, for actimulating of thuman microvascular endochelial cells for medilating the uptake of stimulating differation of or gene expression in perioque cells, for stimulating coliferation of or gene expression in perioque cells, for stimulating coliferation of or gene expression in perioque cells, for stimulating endothelial cell tube formation and continue and arthitis. PRO polypeptides which stimulate such as sports injudice are useful for treating various mammalian hemoglobin-cartilage defects, osteoarthritis and rheumatoid arthitis. PRO polypeptides are useful for treating various mammalian hemoglobin-carticular cartilage defects, osteoarthritis and rheumatoid arthitis. PRO polypeptides are useful for treating various mammalian hemoglobin-casociated disorders such as various spatem cells infilteration. This sequence care this patent is also available in electronic fo The invention relates to isolated human PRO polypeptides (secreted and

Sequence 90 AA;

1 MTFFLSLLLLLVCBAIWRSNSGSNTLBNGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVTFTKAVKTT 60 0; Gaps Length 90; 0; Indels 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0; 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 Local Similarity 100. nes 90; Conservative Query Match Best Loca Matches a ò

ADA86502 standard; protein; 90 AA RESULT 34 ADA86502

20-NOV-2003 (first entry) ADA86502;

Novel human secreted and transmembrane protein PRO1159.

Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TWF-alpha release;
Jucose uptake modulator;
cell proliferation stimulator; real differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.

New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing. Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Claim 12; Fig 474; 637pp; English. 99WO-US012252, 99US-0143048P, 99US-00380137. 16-MAY-2002; 2002US-00147508 Beresini M, Do ME, Goddard A, (GETH) GENENTECH INC. Gerritsen ME, Goddard Smith V, Stewart TA, WPI; 2003-786914/74. N-PSDB; ADA86501. US2003082711-A1. Homo sapiens. 02-JUN-1999; 07-JUL-1999; 01-MAY-2003 Baker KP,

3

Gao

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the cransmembrane) polypeptides (I). (I) is useful for stimulating the cransmembrane of TWT-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle calls or adipocyte cells, for stimulating the proliferation of or gene expression in perioryte cells, for stimulating the proliferation of inner ear utricular supporting cells, constitued to proliferation of inner ear utricular supporting cells, constitued to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothedial cells, for stimulating the proliferation of endothedial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, colls, for isolating genomic and cDNA nucleotide sequences or artisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in an agene mapping, in generation of antisense RNA and DNA, in the companient of the presence of the presence of the presence of the presence of colon, breast, continued to proper and gene mapping, in generation of antisense RNA and DNA, in the corporation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and corporation of chromosome marker, and for generating of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating or servent and for generating or servent and for servent. detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide

Sequence 90 AA;

0; Gaps Length 90; Indels 0 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0; Best_Local Similarity 100.0 Matches 90; Conservative Query Match

0

9

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

д ਨੇ

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

0; Gaps

Length 90; Indels 9 09

RESULT 35 ADB16066

```
proliferation of or gene expression in pericyte cells, for stimulating cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans form cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoathritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypertrophy of meonatal heart; angiogenesis; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; T-lymphocyte proliferation; retinal neuron; c-fos induction; adipocyte cell; chondrocyte differentiation; pancreatic beta-cell precursor differentiation; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTXAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MIFFLSLILLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO; secreted protein; transmembrane protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human secreted/transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                              USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA37888 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0049787P.
97US-0062250P.
97US-0065114P.
97US-00653114P.
97US-00653114P.
97US-0076770P.
98US-0078910P.
98US-0083122P.
98US-0087607P.
98US-0087607P.
98US-0087607P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-NOV-2001; 2001US-00997653.
                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rod photoreceptor cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2003008297-A1.
                                                                                                                                                                                                                                                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .2-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA37888;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-FEB-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-APR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-MAY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADA37888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polyucolectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for catecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as nybridiation probes, in chromosome and gene mapping, in generating antisense RNA and bNA and in gene therapy. The polynucleotides may also antisense RNA and by polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for medulating differentiation of adipocyte cells, for stimulating stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide, and for manufacturing a medicament for diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                            Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; artilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; heemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Filvaroff E, Gao
AL, Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Desnoyers L, Filvar
PJ, Gurney AL, She
tanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beresini M, Deforge L, Desnoyers ME, Goddard A, Godowski PJ, Gurns Stewart TA, Tumas D, Watanabe CK,
         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Fig 474; 637pp; English.
                                                                                                                       ADB16066 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-AUG-1999; 99US-00380137.
30-MAR-2000; 2000WO-US008439.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-APR-2002; 2002US-00127821.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0095301P.
99WO-US012252.
                                                                                                                                                                                                                                                             Human PRO polypeptide #237.
                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-786941/74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ADB16065.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JS2003087350-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38-MAY-2003.
                                                                                                                                                                                                                  20-NOV-2003
                                                                                                                                                                       ADB16066;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Smith V,
```

03-NUT-1998;

```
98US-0088029P.
98US-0088033P.
98US-0088033P.
98US-0088032P.
98US-0088122P.
98US-0088112P.
98US-0088112P.
98US-0088114P.
98US-008814P.
98US-008914P.
98US-008914P.
                                                                                                                                                                                                                                98US-0089653P.
98US-0089653P.
98US-0089801P.
                                                                                                                                                                                                                                                                                                                                                                 99WO-US028634.
                                                                                                                                                                                                                                                                                                                                         99WO-US021547.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004914.
2000WO-US005004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US005841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US020710.
                                                                                                                                                                                                                                                                                          98WO-US021141.
                                                                                                                                                                                                                                                                                                                        99WO-US012252.
                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US014042
                                                                                                                                                                                                                        98US-0089599P.
                                                                                                                                                                                                                                                         98US-0089907P
                                                                                                                                                                                                                                                                 98US-0089908P
                                                                                                                                                                                                                                                                          98WO-US019330.
                                                                                                                                                                                                                                                                                  98WO-US019437
                                                                                                                                                                                                                                                                                                 98WO-US02510B
                                                                                                                                                                                                                                                                                                         901000SD-0M66
                                                                                                                                                                                                                                                                                                                   99WO-US005028
                                                                                                                                                                                                                                                                                                                                  99WO-US021090
                                                                                                                                                                                                                                                                                                                                                          99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US013358
                                                                                                                                                                                                                                                                                                                                                                                20-DEC-1999;
05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
21-MAR-2000;
20-MAR-2000;
15-MAY-2000;
17-MAY-2000;
17-MAY-2000;
22-MAY-2000;
23-MAY-2000;
30-MAY-2000;
30-MAY-2000;
30-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                 15-SEP-1999;
15-SEP-1999;
30-NOV-1999;
                                                                                       10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                               10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
                                                                                                                                                11-JUN-1998;
11-JUN-1998;
12-JUN-1998;
                                                                                                                                                                                                                17-JUN-1998
                                                                                                                                                                                                                                                                                   7-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JUN-2000
                                                        JUN-1998;
                                                                                                                                                                         16-JUN-1998
                                                                                                                                                                                                                                          17-JUN-1998
                                                                                                                                                                                                                                                  18-JUN-1998
                                                                                                                                                                                                                                                          18-JUN-1998
                                                                                                                                                                                                                                                                                                           05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                           DEC-1999
                                        34-JUN-1998;
                                                                 05-JUN-1998
                                                                                                                                                                                 16-JUN-1998
                                                                                                                                                                                                 17-JUN-1998
                                                                                                                                                                                                          17-JUN-1998
                                                                                                                                                                                                                                                                   18-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                           16-DEC-1999
                                                                        05-JUN-1
                                                                                                                                                                                          16-JUN-1
                                                                                                                                                                                                                                                                          16-SEP-1
```

```
The invention relates to an isolated nucleic acid molecule comprising the full-length coding sequence of the DNA ATCC Accession Numbers given in the specification, or comprising a sequence with at least 80% identity to to: (a) a nucleotide encoding any of 147 PRO polypeptides, or an extracellular domain of the polypeptide; or (b) any of 147 nucleotide extracellular domains with or without their associated extracellular domains with or without their associated extracellular domains, expression vectors, host cells, PRO chimaeric proteins, anti-PRO antibodies, methods of detecting polypeptide in a cell expressing the polypeptide of modulating at least one biological activity of a cell expressing the polypeptide. The PRO polypeptides or polymericections of modulating at least one biological activity of a cell expressing the polypeptide. The PRO polypeptides or polymericectors. These are useful as pharmaceuticals, bidagnostics, biosensors or bioreactors. These are useful for stimulating hypertrophy of neonatal heart, promoting angiogenesis, inhibiting vascular endothelial growth factor (VEGP)-stimulated proliferation of endothelial cells, modulating glucose or FFA uptake by adipocyte cells, inducing proliferation and/or redifferentiation of cells, inducing poliferation and/or redifferentiation of cells, inducing poliferation and/or redifferentiation of certain cancers (colon, lung or breast anners) in mammanals, cettain any also be used in gene therapy, particularly for replacing a defective may also be used in gene therapy, particularly for replacing a defective constant constants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MIPFLSLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                 New isolated PRO183, PRO184, PRO361 or PRO846 nucleic acid and secreted transmembrane polypeptides, useful as targets for the diagnosis and treatment of cancers, such as lung and breast cancers.
                                                                                                                                                   ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                     Paoni NF;
Wood WI;
                                                                                                                             DL;
Gođowski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                          Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton Rerrara N, Pong S, Gerber H, Gerritsen ME, Goddard A, Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Roy MA, Stewart TA, Tunas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ą.
                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; Fig 272; 660pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA47852 standard; protein; 90
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
28-AUG-2001; 2001US-00941992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                            WPI; 2003-531419/50.
                                                                                                                                                                                                                                                                                N-PSDB; ADA37887.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA47852;
                                                                                                                                                                                                                      Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADA47852
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              XXXXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

ö

9

```
Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; periotte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028214.
99WO-US028313.
99WO-US028409.
99WO-US028301.
99WO-US028534.
                                                                                                                                                                                                             98WO-US017888
98WO-US018824.
98WO-US019093.
98WO-US0190177.
98WO-US019177.
                                                                                                                                                                                                                                                                                                                                               99WO-US005190.
99WO-US008615.
99WO-US010733.
99WO-US012252.
99WO-US020111.
                                                                                                                                                                                                                                                                              98WO-US021141.
98WO-US022991.
98WO-US022992.
                                                                                                                                                                                                                                                                                                         98WO-US024855.
98WO-US025108.
99WO-US00106.
99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US020944.
99WO-US021090.
99WO-US021547.
99WO-US023089.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028565.
99WO-US030095.
99WO-US030911.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US030999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004341.
2000WO-US004342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US005746.
2000WO-US005841.
2000WO-US006319.
                                                                                                                                                                2002US-00140925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US004414
                                                                                                                            US2003073215-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
                                                                                                                                                                 07-MAY-2002;
                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                              07-0CT-1998;
29-0CT-1998;
29-0CT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-FEB-2000;
                                                                                                                                                                                                                                                              -SEP-1998;
-SEP-1998;
                                                                                                                                               17-APR-2003
                                                                                                                                                                                                                                           14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                          20-NOV-1998
                                                                                                                                                                                                                                                                                                                      -DEC-1998
                                                                                                                                                                                                                                                                                                                             05-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                 10-MAR-1999
                                                                                                                                                                                                                                                                                                                                                         20-APR-1999
                                                                                                                                                                                                                                                                                                                                                                   14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                              08-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                  15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                          15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                           29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                    05-OCT-1999
```

```
2001US-00874503.
2001US-00882636.
2001US-00886342.
2001WO-US019692.
                                                                                                                                                     2001US-00860216.
2001US-00866028.
2001US-00866034.
                                                                                                                  2001US-00802706
2001US-00808689
                                                                                                                              2001US-00816744
2001US-00828366
                                                                                                                                          2001US-00854208
2001US-00854280
                                                                                                  2001US-00796498
                                                                                                       2001WO-US006520
                                                                                                             2001WO-US006666
                                                                                                                                                                       2001WO-US017092
2001US-00872035
                                                                                                                                                                                  2001WO-US017800
                                                                                                                                                                                                                2001US-00887879
                                                                                                                                                                                                                           2001WO-US021066
                                                                                                                                                     18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
01-JUN-2001;
01-JUN-2001;
                                       02-JUN-2000;
28-JUL-2000;
11-AUG-2000;
                                                                                                                                                                                                               21-JUN-2001;
22-JUN-2001;
29-JUN-2001;
09-JUL-2001;
          21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
                                                                    08-NOV-2000;
10-NOV-2000;
01-DEC-2000;
                                                                                                                  09-MAR-2001;
                                                                                                                              22-MAR-2001;
05-APR-2001;
                                                                                                                                          .0-MAY-2001;
                                                                                                                                                                                       05-JUN-2001;
                                                                                                                                                                                                                                            06-AUG-2001;
                           22-MAY-2000;
                                                              24-AUG-2000;
                                                                                     20-DEC-2000;
20-DEC-2000;
                                                                                                 28-FEB-2001;
                                                                                                       28-FEB-2001;
                                                                                                                                                0-MAY-2001;
                                                                                                                                                                                                   19-JUN-2001;
                                                                                                                                                                                                                                                  09-AUG-2001;
```

(GETH) GENENTECH INC

`. 3 Gao Beresini M, Deforge L, Desnoyers L, Filvaroff E, G: ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Gerritsen ME, Baker KP, Smith V,

WPI; 2003-644801/61. N-PSDB; ADA47851

New secreted and transmembrane PRO polypeptides and nucleic acids, useful in gene therapy, detecting the presence of tumor in a mammal, or modulating the uptake of glucose or free fatty acid by skeletal muscle cells or adipocyte cells.

Claim 12; Fig 474; 659pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, brasst, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also

```
-NUL-8-
       be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful exagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of almost cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of one expression in periorty cells, for stimulating cells, for stimulating cells, for stimulating cells, for inducing endothelial cell tube formation and for treating or various bone and/or cartilage disorders such as sports injuries and cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobincasoriated disorders such as various thalassaemias and conditions which may benefit from enhanned local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from constitution.
                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                     100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human; tumour; cancer; colorectal cancer; gene therapy; chondrocyte differentiation; VEGF inhibition; vascular endothelial growth factor; Alzheimer; disease; Parkinson's disease; atherosclerosis; cystic fibrosis; multiple sclerosis; ovarian cancer; tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted/transmembrane polypeptide PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA21574 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0065311P.
97US-0066770P.
98US-0075945P.
98US-0083322P.
98US-0084600P.
98US-0087106P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-0062250P.
97WO-US020069.
97US-0065186P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-2001; 2001US-00997601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                 90; Conservative
                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003054404-A1.
                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-APR-1998;
07-MAY-1998;
28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA21574;
                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADA2157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                           à
```

```
9805-0088734P.
9805-0088738P.
9805-0088742P.
9805-0088810P.
9805-0088824P.
9805-0088826P.
                                                                                                                                                                                                                                                                                                   98US - 0088861P

98US - 0088876P

98US - 0089410F

98US - 0089512P

98US - 0089514P

98US - 0089534P

98US - 0089538P

98US - 0089598P

98US - 0089599P
          98US-0087759P.
98US-0087759P.
98US-0087827P.
                                              98US-0088021P.
98US-0088025P.
98US-0088026P.
                                                                                  9805-0088028P-
9805-0088039P-
9805-0088033P-
9805-0088167P-
9805-0088167P-
9805-0088112P-
9805-0088217P-
9805-0088217P-
                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0089653P.
98US-0089801P.
98US-0089907P.
98US-0089908P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0089947P.
98US-0089948P.
98US-0089952P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0090246P.
98US-0090252P.
98US-0090254P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0090349P.
98US-0090355P.
98US-0090429P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0090472P.
98US-0090535P.
98US-0090540P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0090542P.
98US-0090557P.
98US-0090676P.
98US-0090678P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0090696P.
98US-0090862P.
98US-0090863P.
98US-0091360P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0091628P.
98US-0091633P.
98US-0091646P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0090694P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0090445P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0091544P
98US-0087607P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0090444P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0090690P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0091478P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    38US-0091519P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0091626P
                                  03-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                       04-JUN-1998
                                                                                                                                                                                                                 10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JUN-1998
                                                                                                             04-JUN-1998
                                                                                                                                                                05-JUN-1998
                                                                                                                                                                                       05-JUN-1998
                                                                                                                                                                                                                                                    0-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                  7-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .8-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .8-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                           1-NUU-1
                                                                                                                                                                                                                                                                                                                                                                                                                                              7-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                 7-JUN-1
                                                                                                                                                                                                                                                                                                                                            6-JUN-1
```

```
98US-0097022E

98US-00970218P

98US-00976118P

98US-009752P

98US-0097954P

98US-0097974P

98US-0097978P

98US-0097978P

98US-0097978P

98US-0097978P

98US-0097978P

98US-0097978P

98US-0097878P

98US-0097978P

98US-0097978P

98US-01097986P

98US-01097978P

98US-01097978P

98US-01097978P

98US-01097978P

98US-010978F

98US-01088E

99WO-USO21141

98WO-USO21141

98WO-USO21141

99WO-USO2108

99WS-0113256P

99WS-0113256P
                                                                                                                     98US-0095916P
98US-009512P
98US-0096143P
98US-0096144P
98US-0096142P
98US-0096757P
98US-009675P
98US-009676P
98US-009679P
98US-009689P
98US-009689P
98US-009689P
98US-009689P
98US-009689P
98US-009689P
98US-009695P
98US-009695P
                       9805-0092182P-
9805-0093339P-
9805-0095282P-
9805-0095282P-
9805-0095302P-
9805-0095302P-
9805-0095318P-
9805-0095332P-
9805-0095332P-
9805-0095332P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US021090.
99WO-US021547.
99US-0158663P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028313.
99WO-US028301.
99WO-US028634.
99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0149396P
       98US-0091978P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                          16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
07-OCT-1998;
01-DEC-1998;
22-DEC-1998;
02-JUL-1998;
07-JUL-1998;
09-JUL-1998;
10-JUL-1998;
20-JUL-1998;
30-JUL-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                  17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                  26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                               12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                 -AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-SEP-1999;
                                                                                                                                                                                         -AUG-1998;
                                                                                                                                                                                                                                                                                                                                        26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                           31-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAR-1999
12-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUN-1999
                                                                                                                                                                                                                                                             18-AUG-1998
                                                                                                                                                                                                                                                                             18-AUG-1998
                                                                                                                                                                                                                                                                                                                -AUG-1998
                                                                                                                                                                                                                                                                                                                                  26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                         26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JAN-1999
                                                                                                                                               11-AUG-1998
                                                                                                                                                                                                                                                                                              18-AUG-1998
                                                                                                                                                                                                                                                                                                      19-AUG-1998
                                                                                                                                                                                                                                                                                                                        24-AUG-1998
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO; secreted protein; transmembrane protein; human; septic shock;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 462; DB 6; Length 90; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human secreted/transmembrane protein, PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADA10361 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0049787P.
97US-0062250P.
97US-006518RP.
97US-0065311P.
97US-0065311P.
98US-0078910P.
98US-0083322P.
98US-0084600P.
98US-008760P.
98US-008760P.
98US-008760P.
  2000WO-US000219.
2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
2000WO-US004414.
2000WO-US004914.
                                                                                                                                               2000WO-US005841.
2000WO-US006319.
2000WO-US006884.
                                                                                                                                                                                                                                                                             2000WO-US013705.
2000WO-US014042.
2000WO-US014941.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-NOV-2001; 2001US-00989729
                                                                                                                                                                                                                                     2000WO-US008439
2000WO-US013358
                                                                                                                                                                                                                                                                                                                                           2000WO-US015264
2000US-0213637P
                                                                                                                                                                                                                    2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003059831-A1
05-JAN-2000, 2
06-JAN-2000, 2
11-FEB-2000, 2
24-FEB-2000, 2
24-FEB-2000, 2
24-FEB-2000, 2
10-MAR-2000, 2
10-MAR-2000, 2
10-MAR-2000, 2
15-MAY-2000, 3
30-MAR-2000, 2
31-MAY-2000, 2
31-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 - NOV - 1997)
25 - FEB - 1998;
20 - MAR - 1998;
20 - ARR - 1998;
07 - MAX - 1998;
02 - JUN - 1998;
02 - JUN - 1998;
03 - JUN - 1998;
04 - JUN - 1998;
04 - JUN - 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-NOV-1997;
13-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADA10361;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 39
ADA10361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

5-0088026P 5-0088028P 5-0088028P 5-0088038P 5-0088038P 5-0088167P 5-0088167P 5-0088167P 5-0088167P 5-0088167P 5-0088610F 5-008874P	1015 - 0.08862.6 P. 1015 - 0.08861.6 P. 1015 - 0.088861.P. 1015 - 0.088861.P. 1015 - 0.0881.6 P. 1015 - 0.0891.6 P. 1015 - 0.08951.2 P. 1015 - 0.08951.2 P. 1015 - 0.08951.2 P. 1015 - 0.08951.2 P. 1015 - 0.08951.8 P. 1015 - 0.08951.8 P. 1015 - 0.08951.8 P. 1015 - 0.08951.P. 1015 - 0.08991.P. 1015 - 0	785 - 009047317 787 - 009047317 787 - 009047417 787 - 00906745 787 - 00906745 787 - 00906745 787 - 0090696 787 - 0090696 787 - 0091696 787 - 0091666 787 - 0091666 787 - 0091666 787 - 009166
D86		
	10 - UUN - 1998 11 - UUN - 1998 12 - UUN - 1998 16 - UUN - 1998 16 - UUN - 1998 17 - UUN - 1998 17 - UUN - 1998 17 - UUN - 1998 18 - UUN - 1998 18 - UUN - 1998 19 - UUN - 1998 19 - UUN - 1998 19 - UUN - 1998 22 - UUN - 1998 23 - UUN - 1998 24 - UUN - 1998 24 - UUN - 1998 25 - UUN - 1998 26 - UUN - 1998 27 - UUN - 1998 28 - UUN - 1998 27 - UUN - 1998 28 - UUN - 1998 27 - UUN - 1998 28 - UUN - 1998 27 - UUN - 1998	1. 100N 199 1. 100
**************************************	X X X X X X X X X X X X X X X X X X X	* * * * * * * * * * * * * * * * * * *

US-0094651P US-0095282P US-0095302P US-0095318P US-0095312P US-009532P US-009532P US-009532P US-0096145P US-0096144P US-0096144P US-009614P US-009676P US-009676P US-009676P US-009699P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-009689P US-00969P	98US-0097955P. 98US-0097971P. 98US-0097971P. 98US-0097978P. 98US-0097978P. 98US-0097978P. 98US-0098625P. 98US-0100634P. 98US-0100634P. 98US-0100634P. 98US-0100634P. 98WO-US019437. 98WO-US019437. 98WO-US019437. 98WO-US019437. 98WO-US01968P. 99WO-US01252P. 99WO-US01252P. 99US-0143048P. 99US-0144758P. 99US-0144758P. 99US-01445698P. 99US-0145698P. 99US-0145698P. 99US-0145698P. 99US-0145698P. 99US-0145698P. 99WO-US0121547. 99WO-US021647. 99WO-US021647. 99WO-US021647.
-UUL-1998 -AUG-1998	ANG ANG ANG ANG ANG ANG ANG ANG ANG ANG
# # # # # # # # # # # # # # # # # # #	X X X X X X X X X X X X X X X X X X X

us-09-989-293a-377.jun1.rag

```
2001WO-US006666.
2001US-00802706.
2001US-00808689.
2001US-00828366.
2001US-00854208.
2001US-00854208.
2001US-00854280.
                                                                                                             99WO-US005190
99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000277
2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US004414
2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00796498.
2001WO-US006520.
                                                                                             99WO-US005028
                                                                                                                                                            99WO-US010733
                                                                                                                                                                                 99WO-US012252
                                                                                                                                                                                                                                                                     99WO-US021090
                                                                                                                                                                                                                                                                                            99WO-US021547
                                                                                                                                                                                                                                                                                                              99WO-US023089
                                                                                                                                                                                                                                                                                                                                       99WO-US028214
                                                                                                                                                                                                                                                                                                                                                         99WO-US028313
99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US030095
99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US003565
2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00866034
2001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00872035
                                                                                                                                                                                                     99WO-US020111
                                                                                                                                                                                                                       99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US005601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-AUG-2000; 24-AUG-2000; 26-AUG-2000; 20-AUG-2000; 20-AUG-2000; 20-DEC-2000; 20-DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-MAR-2001; 22-MAR-2001; 205-APR-2001; 210-MAY-2001; 210-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
09-MAR-2001;
29-OCT-1998;
20-DNO-1998;
01-DEC-1998;
05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
11-MAY-1999;
02-JUN-1999;
01-SEP-1999;
11-SEP-1999;
11-SEP-1999;
11-SEP-1999;
11-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-MAR-2000;
02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
20-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                    30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001;
                                                                                                                                                                                                                                                                                                              05-OCT-19
29-NOV-19
      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MIFFLSLILLLUCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPIKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide; truncur necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; glucose; FFA; innex ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADA67647 standard; protein; 90 AA
  2000WO-US005641.
2000WO-US005841.
2000WO-US006819.
2000WO-US007377.
2000WO-US013358.
2000WO-US013358.
2000WO-US014941.
2000WO-US014941.
2000WO-US014941.
2000WO-US014941.
2000WO-US01437P.
2000WO-US01437P.
2000WO-US020311.
2000WO-US020311.
2000WO-US020311.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019093.
98WO-US019177.
98WO-US019330.
98WO-US019437.
98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US012456.
98WO-US014552.
98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-APR-2002; 2002US-00123236
                                                                                                                                                                                                                                                                                                                                                                           2000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 90; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2003068795-A1.
                                                               15-MAR-2000; 2
20-MAR-2000; 2
15-MAY-2000; 2
17-MAY-2000; 2
22-MAY-2000; 2
23-MAY-2000; 2
23-MN-2000; 2
23-MU-2000; 2
23-MU-2000; 2
11-AUG-2000; 2
23-AUG-2000; 2
7-AUG-2000; 2
                                                                                                                                                                                                                                                                                                                                                       07-SEP-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28 - AUG - 1998
28 - AUG - 1998
14 - SEP - 1998
14 - SEP - 1998
14 - SEP - 1998
16 - SEP - 1998
17 - OCT - 1998
29 - OCT - 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADA67647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DXX AC
DX
```

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

à

ADB30654 standard; protein; 90 AA.

RESULT 41 ADB30654

2001WO-US017800

```
Match 100.0%; Score 462; DB 6; Length 90; Local Similarity 100.0%; Pred. No. 9.8e-49; les 90; Conservative 0; Mismatches 0; Indels
                       20-JUN-2001; 2001WG-US919692.
22-JUN-2001; 2001WG-US919692.
22-JUN-2001; 2001WG-US921016.
29-JUN-2001; 2001WG-US921066.
09-JUL-2001; 2001WG-US921066.
06-JUL-2001; 2001WG-09924419.
06-AUG-2001; 2001US-0092796.
16-AUG-2001; 2001US-0092196.
16-AUG-2001; 2001US-0092196.
     2001US-00874503.
2001US-00882636.
2001US-00886342.
                                                                                                             Beresini M,
                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                       WPI; 2003-695926/66.
                                                                                                                                             N-PSDB; ADA67646.
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 90 AA;
                                                                                                                    Gerritsen ME,
            14-JUN-2001;
                                                                                                             Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
                                                                                                                         Smith V,
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and invertumours). The prolynucleotides are useful in molecular biology, including uses a stricense RNA and brooks merapy. The polynucleotides are useful in molecular biology, including uses and in gene therapy. The polynucleotides may also be used in preparing Propolypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of unitable and properties of thuman microvascular endothelial cells, for midnothing proliferation of sinner ear utricular supporting cells, for stimulating proliferation of inner ear utricular supporting cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injunities and cells, for stimulating and encounted as sports injunities and arrivular or artilage are useful for treating sports-related joint problems, arthritis. PRO polypeptides which stimulate the release of proteoglycans arthritis. PRO polypeptides which stimulate the release of proteoglycans arthritis. PRO polypeptides which stimulates and rhemmatoid atthritions which massociated disorders such as various thalassemias and rhemmatoid atthritions which massociated disorders such as various thalassemias and release of proteoglycans sequence data for this parent is allowed and in intermed t
                                                                                                                                                                                                                                                                                                                                                                                                     Novel isolated PRO secreted and transmembrane polypeptides useful for stimulating the release of tumor necrosis factor-alpha from human blood and detecting the presence of a tumor in a mammal.
Deforge L, Desnoyers L, Filvaroff E, Gz
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 12; Fig 474; 660pp; English.
                                                           Goddard A,
                                                                                                                 Stewart TA,
```

9

Matches

d à

```
Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TWF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; enforcyte cell; pericyte cell; endothelial cell; dipocyte cell; pericyte cell; endothelial cell tube formation, bone disorder; cartilage disorder; endothelial cell tube formation, bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                               15-APR-2002; 2002US-00123155
                                                                                                                                                                                                                                                                                                                                                        98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US02510B
                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US005028
                                                                                                                                                                                                                                                                                                                        98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                           98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030911
99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028564
                                              Human PRO polypeptide #237.
                      (first entry)
                                                                                                                                                                                                                   US2003068794-A1.
                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                         1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1999;
                       20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                               1998;
                                                                                                                                                                                                                                                                                                                                                                                           1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .5-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                    4-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38-SEP-1999
                                                                                                                                                                                                                                          10-APR-2003
                                                                                                                                                                                                                                                                                                                        8-AUG-1998
ADB30654;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-APR-1
14-MAY-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-SEP-1
                                                                                                                                                                                                                                                                                                                                                         4-SEP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38-MAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-NOV-
  Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
```

```
2001US-00866034.
                                                                                                                                                                                                                                                                                                                                                     2001US-00874503.
2001US-00882636.
                                                                                                                                                                                                                                                                                                                                                                                2001US-00887879.
                                                                     2000WO-US004914.
2000WO-US005004.
2000WO-US005601.
                                                                                                                                                     2000WO-US014042.
                                                                                                                                                                   2000WO-US015264.
                                                                                                                                                                                        2000WO-US023522
                                                                                                                                                                                                2000WO-US023328
                                                                                                                                                                                                              2000WO-US030873
                                                                                                                                                                                                                     2000WO-US032678
                                                                                                                                                                                                                                  2000WO-US034956.
2001US-00796498.
                                                                                                                                                                                                                                                 2001WO-US006520.
                                                                                                                                                                                                                                                         2001WO-US006666.
                                                                                                                                                                                                                                                                001US-00802706
                                                                                                                                                                                                                                                                       2001US-00808689.
                                                                                                                                                                                                                                                                                             2001US-00854208.
                                                                                                                                                                                                                                                                                                   2001US-00854280.
                                                                                                                                                                                                                                                                                                                  2001US-00866028.
                                                                                                                                                                                                                                                                                                                                       2001US-00872035.
                                                                                                                                                                                                                                                                                                                                              2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                  2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                           2001WO-US019692.
                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US021066.
                                                                                            2000WO-US005746
                                                                                                                  2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00908827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker KP, Beresini M, De.
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC.
                   05-JAN-2000; 2
06-JAN-2000; 2
06-JAN-2000; 2
11-FEB-2000; 2
18-FEB-2000; 2
                                                                                                                                                                               11-AUG-2000;
23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
                                                                     24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
                                                                                                                                                           30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                  20-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                                                 28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                 21-JUN-2001;
                                                                                                         10-MAR-2000;
                                                                                                                                              17-MAY-2000;
                                                                                                                                                                                                                    01-DEC-2000;
                                                                                                                                                                                                                                                         01-MAR-2001;
                                                                                                                                                                                                                                                                MAR-2001;
                                                                                                                                                                                                                                                                       14-MAR-2001;
                                                                                                                                                                                                                                                                                             10-MAY-2001;
                                                                                           02-MAR-2000;
                                                                                                                                                     22-MAY-2000;
                                                                                                                                                                                                             NOV-2000;
                                                                                                                                                                                                                            DEC-2000;
                                                                                                                                                                                                                                                                                                                                       01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                           20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                   19-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                     06-AUG-2001
```

Gao W; Deforge L, Desnoyers L, Filvaroff E, Gr A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;

Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.

sapiens

Ношо

Movel human secreted and transmembrane protein PRO1159.

Human; secreted and transmembrane protein; PRO;

WPI; 2003-708391/67. N-PSDB; ADB30653.

New isolated PRO polypeptides e.g. PRO1801 and PRO1114, useful in the preparation of a medicament for treating a condition responsive to PRO

```
the invention relates to isotated animal pro polypeptides (secreted and the invention relates to isotated animal properties) and the polypreptides encoding them. The invention also relates to an antibody which specifically binds to a PRO colypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The proliferation probes, in chromosome and gene mapping, in generating colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as antisense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in caseful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies are used in preparing conformation and screening of therapeutically useful callubodies, such as tumours, for stimulating and inhibiting proliferation of subman microvascular endothelial cells, for modulating the uptake of proliferation of or gene expression in pericyte cells, for stimulating cells, for stimulating cells, for proliferation of adipocyte cells, for stimulating cells, for inducing endothelial cell tube formation and for treating cells, for modulating and and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans of from cartilage are used in the release of proteoglycans of the proliferation of the proliferation and for treating collisions are used in the release of proteoglycans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                     The invention relates to isolated human PRO polypeptides (secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
polypeptide, and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the USPTO website at seggata.uspto.gov.
                                                 Claim 12; Fig 474; 660pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA85950 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADA85950;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADA85950
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

Gao W;

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G. Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-786907/74.

05-JUN-2000; 2000US-0209832P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

22-APR-2002; 2002US-00127843.

US2003082693-A1

01-MAY-2003

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the creams of TMF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells for adipocyte cells, for stimulating the proliferation of differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating of a cytokine from PBMC cells, for inhibiting the binding of the release of a cytokine from PBMC cells, for inhibiting the binding of the presence of tumour in a mammal. The tumour is lung, colon, breast, cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligomuclectide probes cells, for stimulating genomic and cDMA nucleotide sequences or unisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding in an assays to identify other proteins or molecules involved in binding or preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and concerning of therapeutically useful reagents, in gene therapy, for knockout animals which in turn as chromosome marker, and for generating transgenic animals or chromosome identification, as chromosome marker, and for generating its expression in specific cells, tissues or serum, and for affinity purification of RPO from recombinant cell culture or natural colvorentide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MIFFLSLLLLVCBAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                           New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Pred. https://www.nc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ADA85949.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 43
ADA17905
ID ADA179
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ģ
```

ADA17905 standard; protein; 90 AA.

```
Human; PRO polypeptide; secreted protein; transmembrane protein;
transgenic; tumour; cytostatic.
                                                                                                                                                                                                        98US-0083322P

98US-0084600P

98US-0087106P

98US-008712P

98US-0089028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088028P

98US-0088031P

98US-008812P

98US-008811P

98US-008881P

98US-00881P

98US-00881P

98US-008881P

98US-0089538P

98US-0089538P

98US-0089538P
                                                                                                                                                  97US-0062250P.
97WS-US020069.
97US-006511P.
97US-006511P.
98US-0075945P.
98US-0078910P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0089908P,
98US-0089947P,
98US-0089948P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0089952P.
98US-0090246P.
98US-0090252P.
                                                                                                                           14-NOV-2001; 2001US-00990443
                       20-NOV-2003 (first entry)
                                      Human PRO1159 polypeptide
                                                                                            US2003054987-A1.
                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-JUN-1998;
                                                                                                            20-MAR-2003
                                                                                                                                                                                                                                                                                       4-JUN-1998
                                                                                                                                                                                                                                                                                04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .7-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JUN-1998
        ADA17905;
                                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-11
                                                                                                                                                                                                                                                                                                                                                                                                    .0-JUN-1
                                                                                                                                                                                                                                                                                                                                                    - NUL - 60
                                                                                                                                                                                                                                                                                                                                                                                                                           1-NDD-1
                                                      Human;
                                                                                                                                                                                                                                                                                                                                      -NUL-50
                                                                                                                                                                                                                                                                                                                                             -NDD-50
                                                                                                                                                                                                                                                                                                                                                                                    0-JUN-
                                                                                                                                                                                                                                                                                                                                                                                           -NUL-0
```

```
PR 23—7UN-1998; 98US-0090554 P. P. 23—7UN-1998; 98US-0090431 P. P. 24—7UN-1998; 98US-0090444 P. 24—7UN-1998; 98US-0090444 P. P. 24—7UN-1998; 98US-009044 P. P. 24—7UN-1998; 98US-0090654 P. P. 24—7UN-1998; 98US-0090654 P. P. 25—7UN-1998; 98US-009144 P. P. 25—7UN-1998; 98US-00914 P. 25—7UN-1998; 98US-00914 P. P. 25—7UN-1998; 98US-00914 P. P. 25—7UN-1998; 98
```

```
MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 90,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match

100.0%; Score 462; DB 6;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
   98US-0097979P.
98US-0098034P.
98US-0098034P.
98US-0100634P.
98WO-US019330.
98WO-US019337.
98WO-US021141.
98WO-US021141.
98WO-US021141.
98WO-US021141.
98WO-US021141.
99WS-01326P.
99WS-01326P.
99WS-01456P.
99WS-014622P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US023328.
2000US-0230978P.
2000WO-US030952.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US008439.
2000WO-US013358.
2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028634
99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US030911
2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US005004
2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US006319
2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US007377
26-AUG-1998, 26-AUG-1998, 26-AUG-1998, 31-AUG-1998, 31-AUG-1998, 16-SEP-1998, 17-SEP-1998, 17-SEP-1998, 17-SEP-1999, 17-SEP-1999, 17-SEP-1999, 12-MAR-1999, 12-MAR-1999, 12-MAR-1999, 12-MAR-1999, 12-MAR-1999, 12-MAR-1999, 11-SEP-1999, 11-SEP-2000, 11-SEP-2000, 22-SEB-2000, 24-SEB-2000, 24-SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAR-2000;

10-MAR-2000;

15-MAR-2000;

15-MAR-2000;

15-MAY-2000;

17-MAY-2000;

22-MAY-2000;

23-MAY-2000;

24-MAY-2000;

24-MAY-2000;

24-MAY-2000;

24-MAY-2000;

28-MAY-2000;

28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 44
      Dp
```

0;

ADA97162 ID ADA97162 standard; protein; 90 AA. XX AC ADA97162; XX

USPTO at segdata.uspto.gov/sequence.html.

Sequence 90 AA;

SXS

```
20-NOV-2003 (first entry)
```

Human PRO polypeptide #237

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; seeletal muscle cell; adpocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell importion; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003082705-A1.

01-MAY-2003.

24-APR-2002; 2002US-00131829.

09-DEC-1999; 99US-0170262P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G HS, Goddard A, Godowski PJ, Gurney AL, Sherwood S; tewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-755112/71. N-PSDB; ADA97161. New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the polypeptide, a method for stimulating the presence of a tumour in a mammal (e.g. adrean), lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The prolymucleotides are useful in molecular biology, including uses as antisense RNA and by And in gene therapy. The polymucleotides may also antisense RNA and by Polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation antibodies, such as tumours, for stimulating and inhibiting proliferation of shear earlies of adpoorte cells, for stimulating differentiation of adpoorte cells, for stimulating cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bene and/to cartilage disorders such as sports injunities PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports release of proteoglycan articular cartilage are useful for treating sports release of proteoglycans cartilage are useful for treating sports release of proteoglycans are passociated disorders such as various benefit from mannaced local immune system cells and rhematoid arthrities and rhematoid and infinite sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also variouslable in electronic format from

```
0
                                                 09
                                                            Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNR-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; glucose; FRA; inner ear utricular supporting cell; Pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; cheumatoid arthritis; enemglobin-associated disorder thalassaemia;
                                              1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                          Gaps
                         .;
   Length 90;
                        Indels
                         ..
0
100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                             90
                                                                                                              61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                           ADA79466 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                            immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US021090.
99WO-US021547.
99WO-US023089.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-APR-2002; 2002US-00124818.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US020594
                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                         (first entry)
         Local Similarity 100.
hes 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           US2003082763-A1.
                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                         20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-SEP-1998;
07-OCT-1998;
29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-1998
16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1999
                                                                                                                                                                                                 ADA79466;
 Query Match
             Best Loc
Matches
                                                                                                                                                    RESULT 45
                                                                                                                                                                ADA79466
                                                                                          ò
```

```
99WO-US030999
                                                                                      99WO-US031243
                                                                                              99WO-US031274
                                                                                                                   2000WO-US000376
              99WO-US028409
                             99WO-US028634
                                            99WO-US028564
                                                  99WO-US028565
                                                          99WO-US030095
                                                                 99WO-US030911
                                                                               99WO-US030720
                                                                                                             2000WO-US000277
                                                                                                                                   2000WO-US004341
                                                                                                                                                 000WO-US004414.
                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00866028.
2001US-00866034.
2001WO-US017092.
       99WO-US028313
                      99WO-US028301
                                                                                                                                                                                                                                                                                                 000WO-US030873,
000WO-US032678,
                                                                                                                                                                                                                                                                                                                                                                       2001US-00828366.
2001US-00854208.
                                   99WO-US028551
                                                                                                                                                              000WO-US005004
                                                                                                                                                                                                                                                                                                                    000WO-US034956
                                                                                                                                                                                                                                                                                                                             01US-00796498
                                                                                                                                                                                                                                                                                                                                           001WO-US006666
                                                                                                                                                                                                                                                                                                                                                         2001US-00808689
                                                                                                                                                                                                                                                                                                                                                                2001US-00816744
                                                                                                                                                                                                                                                                                                                                                                                      001US-00854280
                                                                                                                                                                                                                                                                                                                                                                                             2001US-00860216.
                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00872035
                                                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US019692.
2001US-00887879.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US020116.
2001WO-US021066.
2001WO-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00874503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00931836
2001US-00028072
                                                                                                                    06-JAN-2000;
                                                                                                            06-JAN-2000;
                                                                                                                          11-FEB-2000;
                                                                                                                                18-FEB-2000;
                                                                                                                                                                                                 15-MAR-2000;
20-MAR-2000;
                                                                                                                                                                                                                                              30-MAY-2000;
                                                                                                                                                                                                                                                                         23-AUG-2000;
                                                                                                                                                                                                                                                                                                 10-NOV-2000;
                                                                                                                                                                                                                                                                                                       01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                           01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                  09-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                             18-MAY-2001;
                                                                                                                                                              24-FEB-2000;
                                                                                                                                                                                   02-MAR-2000;
                                                                                                                                                                                                                                     22-MAY-2000;
                                                                                                                                                                                                                                                                   11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                22-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JUN-2001;
                                                                                                                                                                                                                 21-MAR-2000;
                                                                                                                                                                                                                                                     02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                     10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                         JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JUN-2001;
                                                                                                                                                                                                                                                                                        08-NOV-2000;
                                                                                                                                                                                          10-MAR-2
                                                                                                                                                                                                                               17-MAY-2
                                                                       20-DEC-1
22-DEC-1
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis polypeptide, a method for stimulating the release of tumour necrosis.

CC proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a memmal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The prolymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating a colon, breach proparing PRO polypeptides by recombinant techniques and in the development and screening of therapoutically which are useful in the development and screening of therapoutically which are useful in the development and screening of therapoutically which are useful in the development and screening of therapoutically which are useful in the development for treating a condition responsive to the polypeptides or antibodies are used in preparing a multipodies, such as tumours, for stimulating and inhibiting proliferation of thuman microvascular mendichelial cells, for modilating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating the proliferation of or gene expression in periopre cells, for stimulating the proliferation of singer ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating articular cartilage defects, osteoarthritis and rhemmatoid arthritis. Propubpeptides are laso useful for treating sports-related joint problems articular cartilage are useful for treating sports-related joint problems articular cartilage are useful for treating sports-related joint problems sequence represents a human PRO polypeptide of the invention. This sequence data for this p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                     New secreted and transmembrane PRO polypeptides and nucleic acids, useful in detection and treatment of cancer and in modulating the uptake of glucose or free fatty acid by skeletal muscle cells or adipocyte cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                             Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; Ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                Claim 12; Fig 474; 659pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADA87605 standard; protein; 90 AA.
                                                                  Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                          Baker KP, Beresini M,
(GETH ) GENENTECH INC.
                                                                                                                                     WPI; 2003-755116/71.
                                                                                                                                                             N-PSDB; ADA79465.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA87605;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA87605
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BXHXAX
```

```
99WO-US021547.
99WO-US023089.
99WO-US028214.
                                                                                                                                                                                                                                                                       99WO-US020111.
                                                                                                                                                                                                                                                                                                                                                      99WO-US028564.
99WO-US028565.
99WO-US030095.
                                                                                                                                                                     98WO-US019177,
98WO-US019330,
                                                                                                                                                                                                                                                    99WO-US008615.
                                                                                                                                                                                                                                                           99WO-US010733.
99WO-US012252.
                                                                                                                                                                                                                                                                                           99WO-US021090.
                                                                                                                                    98WO-US014552
98WO-US017888
                                                                                                                                                       98WO-US019093
98WO-US019094
                                                                                                                                                                                  98WO-US019437
98WO-US021141
                                                                                                                                                                                                                           99WO-US000106
                                                                                                                                                                                                                                 99WO-US005028
                                                                                                                                                                                                                                       99WO-US005190
                                                                                                                                                                                                                                                                                      99WO-US020944.
                                                                                                         16-APR-2002; 2002US-00123907
                                                                                                                                                  98WO-US018824
                                                                                                                                                                                                              98WO-US024855
                                                                                                                                                                                                                   98WO-US02510B
                                                                                                                                                                                                                                                                                                                      99WO-US028313
99WO-US028409
                                                                                                                                                                                                                                                                                                                                    99WO-US028301
                                                                                                                                                                                                                                                                                                                                         99WO-US028634
99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                        99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219.
                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US003565.
                                                                                                                                                                                                                                                                                                                                                                           99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004414
2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US004342
                                                                              US2003087345-A1.
                                                                   Homo sapiens
                                                                                                                                                10-SEP-1998
14-SEP-1998
14-SEP-1998
14-SEP-1998
16-SEP-1998
07-OCT-1998
29-OCT-1998
29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                    30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                        06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                          -SEP-1999;
                                                                                            08-MAY-2003
                                                                                                                                           28-AUG-1998
                                                                                                                                                                                                                   01-DEC-1998;
                                                                                                                                                                                                                                 08-MAR-1999;
                                                                                                                                                                                                                                                                              08-SEP-1999;
13-SEP-1999;
                                                                                                                                                                                                                                                           14-MAY-1999
02-JUN-1999
                                                                                                                                                                                                                                                                       01-SEP-1999
                                                                                                                                                                                                                                                                                                              29-NOV-1999
                                                                                                                                                                                                                                                                                                                            30-NOV-1999
                                                                                                                                                                                                                                                                                                                                   01-DEC-1999
                                                                                                                                                                                                                                                                                                                                         01-DEC-1999
                                                                                                                                                                                                                                                                                                                                                             02-DEC-1999
16-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                        22-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                              30-DEC-1999
                                                                                                                                                                                                                                                                                                                      30-NOV-1999
```

Human; secreted and transmembrane protein; PRO; Tumour necrosis factor alpha release; TWF-alpha release; glucose uptake modulator; PFA uptake modulator; cell proliferation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; lung tumoue; colon tumour; breast tumour; prostete tumour; rectal tumour; cervical tumour; ifver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker. 2000WO-US006884 15-MAR-2000;

2001US-00796498. 2001WO-US006520. 2001WO-US006666. 2001US-00802706. 2001US-00808689. 2001US-00816744. 2001US-00828366. 2001US-00854208. 2001US-00854280. 2000WO-US023328 14-JUN-2001; 2001US-00882636. 19-JUN-2001; 2001US-00886342. 20-JUN-2001; 2001US-00886342. 21-JUN-2001; 2001US-00887879. 22-JUN-2001; 2001WO-US020116. 2000WO-US022031 1000WO-US030952 000WO-US014042 000WO-US034956 001US-00866034 2001US-00872035 2001WO-US017800 09-JUL-2001; 2001WO-US021735. 18-JUL-2001; 2001US-00908827. 06-AUG-2001; 2001US-00924419. 2001US-00860216 001US-00866028 2001WO-US017092 29-JUN-2001; 2001WO-US021066 2001US-00874503 19-DEC-2001; 2001US-00028072 01-MAR-2001; 2 09-MAR-2001; 2 14-MAR-2001; 2 22-MAY-2000; 30-MAY-2000; 02-JUN-2000; 28-JUL-2000; 11-AUG-2000; 10-MAY-2001; 10-MAY-2001; 22-MAR-2001; 25-MAY-2001; 01-JUN-2001; 05-JUN-2001; 09-AUG-2001;

(GETH) GENENTECH INC

Gao W; Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, D Gerritsen ME, Goddard A, Smith V, Stewart TA, Tu

WPI; 2003-786937/74.

N-PSDB; ADA87604.

New PRO nucleic acid, useful for manufacturing a medicament for diagnosing or treating tumor.

Claim 12; Fig 474; 638pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the tralease of TWT-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle calls or adipocyte cells, for stimulating the proliferation of differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in periorte cells, for stimulating the proliferation of inner are utricular supporting cells, for stimulating the proliferation of inner are utricular supporting cells, for stimulating the proliferation of Inner are utricular supporting cells, for the release of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonucleotide probes

are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assaye to identify other proteins or molecules involved in binding interaction. A polymucleotide (II) encoding (I) is useful in chromosome preparation of PRO polymetion of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating probes. An anti-illedy is useful in diagnostic assays for PRO, e.g detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO Sequence 90 AA; polypeptide

е. 9

9 9 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVTPTKAVKTT Gaps . 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; .ive 0; Mismatches 0; Indels 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90; Conservative Best Local Similarity Query Match Matches g à

.

ADB16807

ADB16807 standard; protein; 90 AA. ADB16807;

(first entry) 20-NOV-2003

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adreanal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; skeletal muscle cell; adipocyte cell; pericyte cell; endothelial cell tube formation; bone disorder; articular supporting cell; T-lymphocyte cell; endothelial cell tube formation; atticular cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

US2003087349-A1.

08-MAY-2003

19-APR-2002; 2002US-00125928.

02-JUN-1999; 99WO-US012252. 25-AUG-1999; 99US-00380137. 02-MAR-2000; 2000WO-US005841. 98US-0089947P. 19-JUN-1998; 02-JUN-1999;

(GETH) GENENTECH INC.

2000WO-US032678. 2001US-00028072.

01-DEC-2000; 19-DEC-2001;

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G, ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Gerritsen N Smith V, S

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, proliferation probes, in chromosome and gene mapping, in generating collon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating enther transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful a teagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of medicament for treating condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of thuman microvascular endochelial cells, for stimulating differentiation of adipocyte cells, for stimulating differation of or gene expression in perioyte cells, for stimulating differation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating content of the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating exercing associated disorders such as various some and/or cartilage disorders such as such as various and contraction. This associated disorders numan PRO polypeptides or land immune system cell infilteration. This sequence captare in this patent is also available in electr New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide, and for manufacturing a medicament for diagnosing or treating tumor. Claim 12; Fig 474; 637pp; English. 2003-786940/74. N-PSDB; ADB16806 Sequence 90 AA;

0 Gaps ., 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; Indels 0; 0; Mismatches 90; Conservative Query Match Best Local Similarity Matches

셤 à

셤

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

RESULT 48 ADA28013 ADA28013;

Æ

ADA28013 standard; protein; 90

(first entry) 20-NOV-2003

Human secreted/transmembrane protein PRO1159.

PRO; secreted protein; transmembrane protein; hypertrophy of neonatal heart; angiogenesis; vascular endothelial growth factor; VBGF-stimulated proliferation; endothelial r-lymphocyte proliferation; retinal neuron; rod photoreceptor cell; o-fos induction; adipocyte cell; c-fos induction; adipocyte cell; c-fos induction;

```
pancreatic beta-cell precursor differentiation;
cardiac insufficiency disorder; wound; cancerous tumour;
retinal disorders; loss of sight; retinitis pigmentosum; kidney disorder;
obesity; diabetes; hyperinsulinaemia; hypoinsulinaemia; bone disorder;
cartilage disorder; sports injury; arthritis; cancer; human.
                                                                                                                                   9705-0049787P

9705-0065211P

9705-0065311P

9705-0065311P

9705-0065311P

9805-0065311P

9805-0065311P

9805-0084600P

9805-0087607P

9805-0087607P

9805-0087607P

9805-0087607P

9805-0088028P

9805-0089028P

9805-0089028P
                                                                                                                14-NOV-2001; 2001US-00990726
                                                                             US2003054359-A1
                                                                                                                                                                12-NOV-1997
13-NOV-1997
24-NOV-1997
25-FEB-1998
20-MAR-1998
07-MAY-1998
07-MAY-1998
02-JUN-1998
02-JUN-1998
03-JUN-1998
03-JUN-1998
                                                          Homo sapiens
                                                                                                                                   16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
                                                                                                                                                                                                                                                                                                  04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18 - JUN - 1998

18 - JUN - 1998

19 - JUN - 1998

19 - JUN - 1998

19 - JUN - 1998

22 - JUN - 1998

22 - JUN - 1998

22 - JUN - 1998

23 - JUN - 1998

23 - JUN - 1998

23 - JUN - 1998

24 - JUN - 1998
                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-1998;
09-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                               10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-JUN-1998;
12-JUN-1998;
16-JUN-1998;
                                                                                                                                                                                                                                                                                                                                 -JUN-1998;
-JUN-1998;
-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                            -JUN-1998;
-JUN-1998;
-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUN-1998;
                                                                                               20-MAR-2003
                                                                                                                                                                                                                                                                                           04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-JUN-1998
```

```
98US-0090431P.
98US-0090445P.
98US-0090442P.
98US-0090442P.
98US-0090442P.
98US-0090542P.
98US-0090576P.
98US-0090678P.
98US-0090678P.
98US-0090678P.
98US-009063P.
98US-009063P.
98US-009162P.
98US-009162P.
98US-009164P.
98US-009198P.
98US-009198P.
98US-009198P.
98US-009198P.
98US-009198P.
98US-009198P.
98US-009518P.
98US-009518P.
98US-009518P.
98US-009518P.
98US-009518P.
98US-009518P.
98US-009518P.
98US-009518P.
98US-0096143P.
98US-0096143P.
98US-0096143P.
98US-0096144P.
98US-009614AP.
98US-009614P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US - 0097954P.
98US - 0097955P.
98US - 0097971P.
98US - 0097974P.
98US - 0097978P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0098014P
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
25-70N-1998;
25-70N-1998;
25-70N-1998;
25-70N-1998;
25-70N-1998;
25-70N-1998;
26-70N-1998;
26-70N-1998;
26-70N-1998;
26-70N-1998;
                                                                                                                                                                                   02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
                                                                                                                                                                                                                                                                                                                              10-AUG-1998;
10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                        17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-AUG-1998;
20-AUG-1998;
24-AUG-1998;
                                                                                                                                                                                                                                                               30-JUL-1998,
                                                                                                                                                                                                                                                                                                                                                                       12-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-AUG-1998;
18-AUG-1998;
                                                                                                                                                                                                                                              10-JUL-1998
                                                                                                                                                                                                                                                                                               -AUG-1998
                                                                                                                                                                                                                                                                                                                        04-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-AUG-1998;
18-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-AUG-1998
26-AUG-1998
```

99US-0144758P. 99US-0145698P. 99US-0146222P. 99US-0149396P.

99WO-US021547. 99WO-US028313. 99WO-US028301.

> 30-NOV-1999 01-DEC-1999

99WO-US030095 99WO-US030911 2000WO-US000376

01-DEC-1999; 16-DEC-1999; 05-DEC-1999; 05-JAN-2000; 06-JAN-2000; 11-FEB-2000; 22-FEB-2000;

99WO-US021090.

AUG-1999 -SEP-1999; 08-OCT-1999;

99US-0141037P. 99US-0143048P.

999 20-JUL-1999;

:6661

02-JUN-1999

12-MAR-1999 23-JUN-1999

01-DEC-1998; 22-DEC-1998; 05-JAN-1999;

07-0CT-1998

98WO-US019437 98WO-US025108 98US-0113296P 99WO-US000106 99WO-US005028. 99WO-US012252.

16-SEP-1998, 17-SEP-1998,

Homo sapiens.

2000WO-US005004. 2000WO-US005841. 2000WO-US006319.

24-FEB-2000; 24-FEB-2000; 02-MAR-2000; 10-MAR-2000;

20-MAR-2000; 30-MAR-2000;

15-MAY-2000;

15-MAR-2000;

2000WO-US004414 2000WO-US004914 0

Gaps

·.

0; Indels

0; Mismatches

Local Similarity 100. 1es 90; Conservative

Best Loca Matches

g à

Query Match

100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49;

9 9

1 MIFFLSLLILLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTQSSLEDSVTPTKAVKTT

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the crelease of TNF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of T-lymphocyte cells, for stimulating of A-peptide to factor VIIA, for inhibiting the binding of the release of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the binding of the presence of tumour in a mammal. The differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, cells, for stimulating proliferation of endothelial cells, for detecting prostate, rectal, cervical or liver tumour. The oligonucleotide probes cells, in salso useful for isolating genomic and cDMA nucleotide sequences or untisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding conditions and gene mapping, in generation of antisense probes. (2) in turn are useful in the development and condition of PRO polypeptide, for generating transgenic animals or concerning of therapeutically useful reagents, may and for generating of chromosome identification, as chromosome marker, and for generating probes. An anti-(1-antibody is useful in diagnostic assays for PRO, e.g. detecting its expression in paperific cells, itsuses or serum, and for affinity purification of PRO from recombinant cell culture or natural calls sequence of a novel human secreted and transmembrane PRO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide, or a composition for treating e.g., tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                          Gao
                                                                                                                                                                                                                                                                                                            Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                           03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US03267B.
19-DEC-2001; 2001US-00028072.
                                                                                                                                   22-APR-2002; 2002US-00127845.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-786908/74.
                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ADA91898
                                          US2003082694-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 90 AA;
                                                                                      01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polypeptide.
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
```

RESULT 50

0;

ADB14962

Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
Jucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inihibitor; cytokine release stimulator;
tumour; cell differentiation inihibitor; cytokine release stimulator;
tumour; lung tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.

Novel human secreted and transmembrane protein PRO1159.

(first entry)

20-NOV-2003

ADA91899;

ADA91899 standard; protein; 90 AA

RESULT 49 ADA91899

ADB14962 standard; protein; 90 AA

ADB14962

(first entry) 20-NOV-2003 Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; glucose; FRA; inner ear utricular supporting cell; pricyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; shortenglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens

US2003087351-A1

08-MAY-2003

22-APR-2002; 2002US-00127822.

99WO-US028313. 2000WO-US032678. 99WO-US012252. 98US-0089532P 02-JUN-1999; 25-AUG-1999; 01-DEC-2000; 19-DEC-2001; 17-JUN-1998; 30-NOV-1999;

(GETH) GENENTECH INC.

2001US-00028072

Gao W; ssini M, Deforge L, Desnoyers L, Filvaroff E, G Goddard A, Godowski PJ, Gurney AL, Sherwood S; art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-786942/74. N-PSDB; ADB14961.

New PRO nucleic acid, useful for manufacturing a medicament for diagnosing or treating tumor

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the prolateration or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating consistence in preparing PRO polypeptides by recombinant techniques and in the useful in the development and screening of therapeutically useful cuseful in the development and screening of therapeutically useful crangenic animals or knock-out animals which are useful in the development and screening of therapeutically useful crangenic animals of therapeutically useful crangenic accordition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of stimulating differentiation of anipocyte cells, for stimulating confleration of inner ear utricular supporting cells, for stimulating confleration of inner ear utricular supporting cells, for treating confleration of inner ear utricular supporting cells, for training confleration of inner ear utricular supporting cells, for treating confleration of inner ear utricular supporting cells, for treating confleration of inner ear utricular supporting cells, for triminers and confleration and for treating conflerations bone and/or cartilage disorders such as sports injuries and and conflerations of properties which stimulate the release of proteoglycans

```
articular cartilage defects, osteoarthrifis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                  o;
                                                                                                                                                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                     09
                                                                                                                                                                                                                         1 MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
  sports-related joint problems,
                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; FFA uptake modulator; cell proliferation stimulator; cell differentiation stimulator; cell differentiation stimulator; cytokine releas.
                                                                                                                                                  100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; secreted and transmembrane protein; PRO;
                                                                                                                                                                                                                                                             90
                                                                                             USPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
 cartilage are useful for treating
                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                    ADB18923 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-APR-2002; 2002US-00123292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US019177.
98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US005190.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US014552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US020944
99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US020594
                                                                                                                                             Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003073211-A1.
                                                                                                                       Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                             20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                  ADB18923;
88888888888888
                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                셤
```

```
09-MAR-2001; 2001US-00802706.

14-MAR-2001; 2001US-0080689.

22-MAR-2001; 2001US-0081674.

05-APR-2001; 2001US-00854208.

10-MAY-2001; 2001US-00854208.

18-MAY-2001; 2001US-00854280.

18-MAY-2001; 2001US-00860216.

25-MAY-2001; 2001US-00866028.

25-MAY-2001; 2001US-00866034.

25-MAY-2001; 2001US-00866034.

25-MAY-2001; 2001US-00866034.
                          99WO-US028313.
99WO-US028409.
99WO-US028634.
99WO-US028551.
99WO-US028564.
99WO-US028564.
                                                                                                                                                                                                                                                                                2000WO-US007377.
2000WO-US007532.
2000WO-US008439.
2000WO-US013705.
                                                                                                                                                                                                                          2000WO-US005004.
2000WO-US005601.
2000WO-US005746.
                                                                                                   99WO-US030911.
                                                                                                                                         99WO-US031274.
                                                                                                                                                                                       2000WO-US004341.
2000WO-US004342.
        99WO-US023089
99WO-US028214
                                                                                                                      99WO-US030720
                                                                                                                                 99WO-US031243.
                                                                                                                                                           2000WO-US000277.
                                                                                                                                                                    2000WO-US000376.
                                                                                                                                                                              2000WO-US003565
                                                                                                                                                                                                                 2000WO-US004914
                                                                                                                                                                                                                                                     2000WO-US005841.
2000WO-US006319.
                                                                                                                                                                                                                                                                                                                      2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JUL-2001; 2001US-00908827
06-AUG-2001; 2001US-00924419,
09-AUG-2001; 2001US-00927796,
16-AUG-2001; 2001US-00931836.
                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00874503.
2001US-00882636.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00887879.
2001WO-US020116.
                                                                                                                                                                                                                                                                                                                                        2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                            2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00796498
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US006666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00872035
2001WO-US017800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00886342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US019692
                                                                                                                                               05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                               24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
02-MAR-2000;
02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2000;
20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-JUN-2001;
21-JUN-2001;
22-JUN-2001;
29-JUN-2001;
                                                                                                                                                                                                                                                                                20-MAR-2000;
21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
                                                                                                                                                                                                                                                                                                                     22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                          24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
                         30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
16-DEC-1999;
20-DEC-1999;
22-DEC-1999;
                                                                                                                                                                                     18-FEB-2000;
                                                                                                                                                                                             18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAR-2001;
09-MAR-2001;
                                                                                                                              30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                         11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                   23-AUG-2000;
```

```
0
                                                                                                                                                                           New isolated nucleic acid and encoded PRO polypeptide, are useful in the
                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour, cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sports injury; proteoglycan; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                   Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gao W;
                                                                                                                                                                                                                                                             The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyt
                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                             Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Filvaroff E, 'L, Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; .ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP, Beresini M, Deforge L, Desnoyers L, Fi
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                              Claim 12; Fig 474; 638pp; English
                                                                                                                                                                                              diagnosis and treatment of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADA94138 standard; protein; 90 AA
 19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-MAY-2002; 2002US-00137872.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.1
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                              Baker KP, Beresini M,
Gerritsen ME, Goddard
                              (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                             WPI; 2003-695954/66.
                                                                                                                                                N-PSDB; ADB18922
                                                                                                                                                                                                                                                                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003077722-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA94138;
                                                                                               Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADA94138
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO colypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the polypeptide, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in humosome and gene mapping, in generating colon, breast, prostate, rectal, kidney, cervical and liver tumours). The hypridisation probes, in chromosome and gene mapping, in generating a colon properties by recombinant techniques and in the development and sortening of knock-out animals which are useful in the development and sortening of knock-out animals which are useful in the development and sortening of knock-out animals which are useful in the development and sortening of knock-out animals which are useful in the development and sortening of xnock-out animals which are useful in the development as tumours, for antibodies are used in preparing a condition responsive to the polypeptides or antibodies such as tumours, for stimulating and inhibiting proliferation of machinal cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for modulating differentiation of adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating cells are also useful for treating various mentaling endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and articular cartilage are useful for treating various mammalian and conditions which may benefit from enhanced local immune system cell infilteration. This sequence represents a human PRO polypeptide of the invention of the propeoplement of sequence tabs c New isolated, secreted and transmembrane PRO nucleic acid, useful for diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver tumors. Claim 12; Fig 474; 637pp; English. Smith V, Stewart TA, WPI; 2003-755077, N-PSDB; ADA94137

Sequence 90 AA;

Gaps . 0 Length 90; Indels 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0; 90; Conservative Query Match Best Local Similarity Matches

1 MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

à g

9

ADB20034 standard; protein; 90 RESULT 53 ADB20034

ADB20034;

Ş

20-NOV-2003

Novel human secreted and transmembrane protein PR01159.

Human; secreted and transmembrane protein; PRO; Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; FFA uptake modulator;

cell proliferation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.

Homo sapiens.

for the

Zhang Z;

Wood WI,

Tumas D, Watanabe CK,

2003-755077/71.

US2003082691-A1.

01-MAY-2003

22-APR-2002; 2002US-00127838.

99US-00403297 99WO-US0201 01-SEP-1999; 18-OCT-1999;

23-AUG-2000; 2000WO-US023522. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072. 2000WO-US004342 2000WO-US015264 18-FEB-2000; 02-JUN-2000;

(GETH) GENENTECH INC.

Σ, Sherwood S; II, Zhang Z; Filvaroff E, Baker KP, Beresini M, Deforge L, Desnoyers L, Filvar Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, She Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI,

WPI; 2003-755138/71. N-PSDB; ADB20033. PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.

Claim 12; Fig 474; 637pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the crelease of TNF-alpha from human blood, for modulating the uptake of glucose or FFBA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for detecting the presence of tumulating proliferation of endothelial cells, for detecting the presence of tumulating proliferation of endothelial cells, for detecting the presence of tumulating genomic and CDNA nucleotide sequences or are useful for isolating genomic and CDNA nucleotide sequences or antisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polymorleotide (11) encoding (1) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the preparation of RNO polypeptide, for generating transgenic animals or concerning of therapeutically useful reagents, in gene therapy, for throwosome identification, as chromosome marker, and for generating of chromosome identification, as chromosome marker, and for generating the propertion in an engine of the propertion in the development and concerned the propertion in an engine in engance of PROP polypeptide (1) encoding (1) ensured or probes. detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO

Sequence 90 AA;

polypeptide.

Gaps 0 Length 90; Indels 6 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; Mismatches . Best Local Similarity 100. Matches 90; Conservative Query Match

0

of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating trimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating cells, for trimulating cells, for stimulating cells, for treating sports related joint problems, attinular cartilage defects, osteoarthritis and rheumatoid arthritis, PRO polypeptides are also useful for treating various mammalian haemoglobin.

Co polypeptides are also useful for treating various mammalian haemoglobin, may benefit from enhanced local immune system cell infiltration. This sequence tepresents a human PRO polypeptide of the invention. Note: The report of the invention of format from reports.

JSPTO at segdata.uspto.gov/sequence.html.

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in cuseful in the development and screening of therapeutically useful cuseful in the development and screening of therapeutically useful cuseful in the PRO Polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation
                                                                                                                                                                                                                                                                                                                                                                                                    Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; theumatoid arthritis; haemoglobin-associated disorder thalassaemia;
        9
                            1 MIFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide, preparing a composition for treating e.g., tumor, or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gao W;
MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ssini M, Deforge L, Desnoyers L, Filvaroff E, Ga
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
irt TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                            GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                    ADB13346 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-MAY-2002; 2002US-00147484.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0170262P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-DEC-2000, 2000WO-US032678
19-DEC-2001, 2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-786913/74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ADB13345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003082710-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gerritsen ME,
                                                                                                                                                                                                                                                                                                                        20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-2003.
                                                                                                                                                                                                                                                                              ADB13346;
                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Smith V,
                                                                                                                                                                                                                ADB13346
                                                                                                                                                                                                                                                      g
                                                                                    à
```

```
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      transmembrane protein; PRO; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; secreted and transmembrane protein chromosome identification; tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABO43385 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US012456.
98WO-US014552.
98WO-US017888.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAY-2002; 2002US-00142419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003044945-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABO43385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABO43385
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A CANAL A CANA
```

```
2001US-00802706.
2001US-00808689.
2001US-00816744.
2001US-00828366.
2001US-00854208.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00854280.
2001US-00860216.
2001US-00866028.
2001US-00866034.
                                                                                                                                                                                                                                                                                        99WO-US030911.
99WO-US030999.
99WO-US030720.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00872035.
2001WO-US017800.
2001US-00874503.
                                                                                                                                                                                                                                                                                                                                                                99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US030873.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00886342
                                                                                                                                                                                 99WO-US028301.
                                                                                                                                                                                                                                      99WO-US028564.
                                                                                                                                                                                                                                                                                                                                             99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US005601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US005746
2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00887879
2001WO-US020116
                                                                    99WO-US021090
99WO-US021547
                                                                                                        99WO-US023089
                                                                                                                                                              99WO-US028409
                                                                                                                                                                                                                   99WO-US028551
                                                                                                                                                                                                                                                     99WO-US028565
                                                                                                                                                                                                                                                                        99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00796498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001WO-US006666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US021066
                                                                                                                                              99WO-US028313
                                99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11. AUG-2000; 23-AUG-2000; 23-AUG-2000; 20-AUG-2000; 20-AUG-2000; 20-BC-2000; 
                                                                                                                                                                                                                                                                                                                                                                                                                  06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2000;
02-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-MAY-2000;
02-JUN-2000;
28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-JUN-2001;
19-JUN-2001;
                                                                15-SEP-1999;
15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-MAR-2000;
15-MAR-2000;
20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                 ,6661
                                                                                                                                                                                                                                                     02-DEC-1999;
16-DEC-1999;
                                                                                                                                                                                                                                                                                        20-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                             30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                 06-JAN-2000;
                                                                                                                                                                                   01-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-2000
24-FEB-2000
```

```
and transmembrane) polypeptide. Nucleic acids which encode PRO can be used to generate either transgenic animals or knock-out animals useful in developing and screening of therappeutically useful reagents. The nucleic acids may also be used in gene therapy, in chromosome identification, as chromosome markers, or in generating probes. The PRO polypeptides are useful as molecular markers for protein electrophoresis, and the isolated PRO polypeptides and nucleic acids may be used for recombinantly expressing those markers. The PRO polypeptides and nucleic acids may also be used in tissue typing. Anti-PRO antibodies are useful in diagnostic assays for PRO, and in affinity purification of PRO from recombinant cell culture or natural sources. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention describes an isolated nucleic acid encoding a PRO (secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                       New transmembrane polypeptides and nucleic acids encoding the polypeptides, useful in gene therapy, in chromosome identification, as chromosome markers, or in generating probes.
                                                                                                                                                                                           Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRO; secreted protein; transmembrane protein; hypertrophy of neonatal heart; angiogenesis; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; T-lymphocyte proliferation; retinal neuron; c-fos induction; adipocyte cell; chondrocyte differentiation; pancreatic beta-cell precursor differentiation; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer; red photoreceptor cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MTFFLSLILLLIVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                       Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G:
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human secreted/transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Fig 474; 660pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA94593 standard; protein; 90 AA
09-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00908827.
06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927796.
16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90; Conservative
                                                                                                                                                  (GEIH ) GENENTECH INC
                                                                                                                                                                                                                                                                       WPI; 2003-492275/46.
N-PSDB; ACD98660.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 56
ADA94593
      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਨੇ
```

US2003059832-A1.

0

```
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
26-JUN-1998;
26-JUN-1998;
26-JUN-1998;
01-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
03-JUL-1998;
04-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
26-AUG-1998;
17-SEP-1998;
18-SEP-1998;
    9705-0049787P.
9705-0062186P.
9705-0065186P.
9705-0065186P.
9705-0065111P.
9705-0065111P.
9705-0065311P.
9705-0063312P.
9805-008122P.
9805-008122P.
9805-008122P.
9805-008121P.
9805-008121P.
9805-008121P.
9805-008121P.
9805-008874P.
9805-008974P.
                                             2001US-00997349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22 JUN - 1998;
23 - JUN - 1998;
23 - JUN - 1998;
24 - JUN - 1998;
                                                                    16-JUN-1997;

17-OCT-1997;

12-NOV-1997;

13-NOV-1997;

13-NOV-1997;

24-NOV-1997;

25-PEB-1998;

20-ARX-1998;

28-ARX-1998;

78-ARX-1998;

78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
18-JUN-1998;
18-JUN-1998;
18-JUN-1998;
19-JUN-1998;
19-JUN-1998;
19-JUN-1998;
19-JUN-1998;
22-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L-UUN-1998;
--UUN-1998;
--UUN-1998;
--UUN-1998;
--UUN-1998;
--UUN-1998;
                                            15-NOV-2001;
                     27-MAR-2003
```

98US-0090678P.
98US-0090678P.
98US-0090694P.
98US-0090695P.
98US-0090695P.
98US-0090662P.
98US-0090662P.
98US-0091544P.
98US-0091548P.
98US-0091548P.
98US-0091548P.
98US-0091548P.
98US-0091548P.
98US-0091628P.
98US-009163P.
98US-009182P.
98US-009182P.
98US-009182P.
98US-009182P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-009689P.
98US-00969P.
98US-00979P.

```
98WO-US022992.
98WO-US024855.
98WO-US025108.
99WO-US000106.
99WO-US000106.
                                                                                                                                                                                                    99WO-US005190.
99WO-US008615.
99WO-US010733.
                                                                          98WO-US018824.
98WO-US019093.
98WO-US019094.
98WO-US019177.
                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004341
2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005004
2000WO-US005601
                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004914
                                                                                                                                                                                                                                                                                  99WO-US021547.
                                                                                                                                                                                                                                                                                                               99WO-US028313
99WO-US028409
                                                                                                                                                                                                                                                                                                                                  99WO-US028301
                                                                                                                                                                                                                                                                                                                                                     99WO-US028551
                                                                                                                                                                                                                                                                                                                                                               99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                         99WO-US02B565
                                                                                                                                                                                                                                                                                                                                                                                 99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                            99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US000277
                                                                                                               98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                            99WO-US020111
99WO-US020594
                                                                                                                                   98WO-US021141
                07-MAY-2002; 2002US-00140928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-MAR-2000;
02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                          20-DEC-1999;
20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                       39-NOV-1999;
                                                                                                                                                       29-OCT-1998;
20-NOV-1998;
                                                                                                                                                                                    05-JAN-1999
Human; PRO; secreted polypeptide; transmembrane polypeptide; tummour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tummour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; sintervascular endothelial cell; glucose; FFA; intervascular adporting cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; hemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                              MTFFLSLLLLLVCRAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                                                                                                                                                                                                Length 90;
                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                              100.0%; Score 462; DB 6; Ilarity 100.0%; Pred. No. 9.8e-49; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADA74600 standard; protein; 90 AA
                                                                                                                                                          05-JAN-2000; 2000WO-US000319.
06-JAN-2000; 2000WO-US000376.
11-FEB-2000; 2000WO-US000341.
22-FEB-2000; 2000WO-US00414.
24-FEB-2000; 2000WO-US00414.
24-FEB-2000; 2000WO-US004114.
24-FEB-2000; 2000WO-US006911.
24-FEB-2000; 2000WO-US006911.
24-FEB-2000; 2000WO-US006911.
24-FEB-2000; 2000WO-US006911.
24-FEB-2000; 2000WO-US006911.
24-MAR-2000; 2000WO-US006319.
15-MAR-2000; 2000WO-US01377.
15-MAY-2000; 2000WO-US013768.
17-MAY-2000; 2000WO-US013705.
22-MAY-2000; 2000WO-US013705.
30-MAR-2000; 2000WO-US013705.
30-MAR-2000; 2000WO-US013705.
30-MAR-2000; 2000WO-US013705.
                                                                               99WO-US021090.
99WO-US021547.
99WO-US028313.
99WO-US028301.
99WO-US028301.
            99WO-US012252.
99US-0141037P.
99US-014478P.
99US-014478P.
99US-014622P.
99US-0146222P.
                                                                                                                                                     99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2003068798-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
   12-MAR-1999;
02-UN-1999;
02-UN-1999;
07-UUL-1999;
26-UUL-1999;
17-MG-1999;
17-MG-1999;
15-SEP-1999;
16-SEP-1999;
01-DEC-1999;
01-DEC-1999;
01-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                     106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADA74600;
                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA74600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                          ઠે
```

```
2001US-00860216.
2001US-00866028.
2001US-00866034.
                                                                                                                                            2001WO-US021735.
                                                                                                                                                 2001US-00908827.
                                                                                                                                                             2001US-00927796.
                                                                                                                                                                    2001US-00931836.
                                                                                                                                                                        2001US-00028072
                     2001WO-US006666.
2001US-00802706.
2001US-00808689.
                                                                                                                                     2001WO-US021066.
                                                                                                                                                        2001US-00924419
                                       2001US-00816744.
2001US-00828366.
                                                         2001US-00854280.
                                                                                2001WO-US017092
                                                                                      2001US-00872035
                                                                                           2001WO-US017800
                                                                                                  2001US-00874503
                                                                                                       2001US-00882636
                                                                                                              2001US-00BB6342
                                                                                                                    2001WO-US019692
                                                                                                                         2001US-00887879
                                                                                                                               2001WO-US020116
                                                   2001US-0085420B
                28-FEB-2001; 2
01-MAR-2001; 2
09-MAR-2001; 2
14-MAR-2001; 2
22-MAR-2001; 2
                                              05-APR-2001;
10-MAY-2001;
                                                                                                                                                                    16-AUG-2001;
19-DEC-2001;
                                                                                             01-JUN-2001;
                                                                                                                                            09-JUL-2001;
                                                                                                                                                        06-AUG-2001;
                                                                18-MAY-2001;
                                                                            25-MAY-2001;
25-MAY-2001;
                                                                                        01-JUN-2001;
                                                                                                         14-JUN-2001;
                                                                                                              19-JUN-2001;
                                                                                                                    20-JUN-2001;
                                                                                                                           21-JUN-2001;
                                                                                                                                 22-JUN-2001;
                                                                                                                                       29-JUN-2001;
                                                          10-MAY-2001;
                                                                       25-MAY-2001;
```

(GETH) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff E, G. A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; ME, Goddard Stewart TA, Beresini M, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-625490/59. N-PSDB; ADA74599.

Novel secreted and transmembrane PRO polypeptides and polynucleotides encoding them, useful for treating bone disorders, arthritis, heart attack, injuries, tumors, and stimulating release of Tumor Necrosis Factor-alpha from human blood.

Claim 12; Fig 474; 659pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The transmembrane polypeptides and the polynucleotides encoding them. The polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also generating either transgenic animals or knock-out animals which are used in preparing PRO polypeptides by recombinant techniques and in consequents. The PRO polypeptides or antibodies are used in preparing a reagents. The PRO polypeptides or antibodies are used in preparing a contition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of attain and antiboties or each an each of adminisher of each. stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems,

The invention relates to isolated human PRO polypeptides (secreted and

```
ö
articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha: TNF-alpha: chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; harmoglobin-associated disorder thalassaemia;
                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors such as lung, colon, breast, prostate, rectal, cervical and/or liver
                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 yers L, Filvaroff B, (Gurney AL, Sherwood S; CK, Wood WI, Zhang Z;
                                                                                                                                                                                                       .
                                                                                                                                                                      Length 90;
                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L, Desnoyers L,
ski PJ, Gurney A
Watanabe CK, Wo
                                                                                                                                                                      100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
:ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Deforge L, L
A, Godowski F
Tumas D, Wata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human PRO polypeptide SEQ ID NO 474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 12; Fig 474; 637pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                               ADB24833 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-APR-2002; 2002US-00127839.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-NOV-2003 (first entry)
                                                                                                                                                                                                             90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-755068/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stewart
                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ADB24832.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003077713-A1.
                                                                                                                                          Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acids, useful
such as lung,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB24833;
                                                                                                                                                                             Query Match
                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                RESULT 58
                                                                                                                                                                                                                                                                                                                                                                                                                 ADB24833
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                             셤
          8x888888x8
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                               쉱
```

transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour in necrois factor—alpha (Turk—alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The proliferation probast in molecular biology, including uses as olympridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapoutically where the development and screening of therapoutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skelerntiation of adipocyte cells, for stimulating correct stimulating endothelial cells for mediating the uptake of corribus bone and/or cartilage defects, escion in periorte cells, for stimulating corribus bone and/or cartilage which stimulate the release of profession of inner ear utricular supporting cells, for mediating endothelial cells for may benefit for acting endects, such as sports injuries and cartilage are useful for treating various mammalian haemoglobin associated disorders such as various thalassaemias and mammalian mammalian and respense of this patent is also useful for treating various mammalian haemoglobin sequence represents a human PRO polypeptide of the invention. Note: The sequence represents a patent is also useful was avaiuse thalassaemics and compared for this pate 용용용용용용용용용용용용용용용용용용용용용용용용용용용용용

Sequence 90 AA;

ö 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 09 1 MTFFLSILILILVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 0; Gaps Length 90; 0; Indels 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; 0; Mismatches 90; Conservative Similarity Query Match Local Matches ð

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

ð

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

ADA82357 standard; protein; 90 AA. ADA82357

RESULT 59

20-NOV-2003 (first entry) ADA82357;

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

US2003082701-A1 Tomo sapiens

```
transmembrane polypeptides) and the polymucleotides encoding them. The invention relates to isolated human PRO polypeptides | Westlevelua and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The proliferation probes, in chromosome and gene mapping, in generating chybridisation probes, in chromosome and gene mapping, in generating of physicias RNA and DNA and in gene therapy. The polymucleotides may also attiemed a RNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant rechniques and in generating either transgenic animals or knock-out animals which are used in the development and screening of therapeutically useful useful in the development and screening of therapeutically useful useful in the development and screening of therapeutically useful useful in the development and screening of therapeutically useful useful coloning are useful screening of condition responsive to the polypeptides or antibodies are useful screening actimulating the uptake of glucose or FRA by skeletal muscle cells, for stimulating the proliferation of orgene expression in pericyte cells, for stimulating the proliferation of inner ear usricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation mammalian haemoglobin-associated disorders such as various studies supports injuries and conditions are also useful for treating sports-related joint problems, are also useful for treating various mammalian haemoglobin associated disorders such as various thatalessemias and configure educe of the properties are also useful manne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO nucleic acid, useful for preparing a composition for treating e.g.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to isolated human PRO polypeptides (secreted and
                                                                                                                                                                                                                                                                                                                                 Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USPTO at segdata.uspto.gov/seguence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Fig 474; 637pp; English
                                                                                                                                                                            30-WAR-2000; 2000WO-US008439.
02-JUN-2000; 2000WO-US015264.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                         98US-0100634P.
99WO-US012252.
                                                                                                                                                       99US-00380137
                                        23-APR-2002; 2002US-00128686
                                                                                      98US-0098525P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                         Baker KP, Beresini M, De:
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum
                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-755110/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ADA82356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 90 AA;
                                                                                                            16-SEP-1998;
02-JUN-1999;
                                                                                                                                                              25-AUG-1999;
```

· (DB 6; Length 90; Indels . 0 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; Mismatches 0; 90; Conservative Local Similarity Query Match Matches

1 MTFPLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

g ð

09

```
99WO-US030720.
99WO-US031243.
99WO-US031274.
                                ADA75320 standard; protein; 90
                                                                                                                                                                                                                                       98WO-US014552.
98WO-US017888.
98WO-US018824.
98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6660 £0S0 - OM66
                                                                                                                                                                                                                                                                                                                                                                                   99WO-US020594.
                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US030911
                                                                                                                                                                                                                                                                                  98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                           98WO-US025108
99WO-US000106
                                                                                                                                                                                                                                                                                                                                                99WO-US005190
99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                          99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028634
                                                                                                                                                                                                                                                                     98WO-US019094
                                                                                                                                                                                                                                                                                                 98WO-US021141
                                                                                                                                                                                                                                                                                                       98WO-US022991
                                                                                                                                                                                                                                                                                                             98WO-US022992
                                                                                                                                                                                                                                                                                                                     98WO-US024855
                                                                                                                                                                                                                                                                                                                                          99WO-US005028
                                                                                                                                                                                                                                                                                                                                                              99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                      99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                            99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                           US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028551
                                                                                                                                                                                                                                                                           98WO-US019177
                                                                                                                                                                                                            2002US-00160498
                                                                         Human PRO polypeptide #237.
                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                               99WO-US021
                                                                                                                                                                                                                                                                                                                                                                                                                                           -0M66
                                                                                                                                                                                  JS2003073216-A1.
                                                                                                                                                                                                                                                                                                                                         08-MAR-1999;
10-MAR-1999;
20-APR-1999;
14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                     02-JUN-1999;
01-SEP-1999;
08-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         -DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                          -DEC-1999;
                                                                                                                                                                                                              30-MAY-2002;
                                                                                                                                                                                                                                               28-AUG-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                07-OCT-1998;
29-OCT-1998;
29-OCT-1998;
                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              L6-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                          13-SEP-1999
15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                      29-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                             NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                        15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                     NOV-1999
                                                                                                                                                                                                                                                                                   16-SEP-1998
                                                             20-NOV-2003
                                                                                                                                                                                                17-APR-2003
                                                                                                                                                                                                                                                                                                                                    05-JAN-1999
                                               ADA75320;
                                                                                                                                                                                                                                                                                                                            01-DEC-1
                    RESULT 60
ADA75320
                                         셤
```

```
New secreted and transmembrane PRO polypeptides useful for stimulating the release of tumor necrosis factor alpha in human blood and detecting the presence of tumor in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Deforge L, Desnoyers L, Filvaroff E, G
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; Fig 474; 638pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-JUN-2001, 2001WO-US019692.
21-JUN-2001, 2001WC-00887879.
22-JUN-2001, 2001WC-US021066.
09-JUL-2001, 2001WO-US021735.
18-JUL-2001, 2001WS-00908827.
06-AUG-2001, 2001US-00924419.
09-AUG-2001, 2001US-00931836.
16-AUG-2001, 2001US-00931836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00872035.
2001WO-US017800.
2001US-00874503.
2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00808689.
2001US-00816744.
2001US-00828366.
                                                                                                                                                                                                                                                                                                                                       2000WO-US032678.
2000US-00747259.
                                                                                                                                                                                                                                                                                                                                                               2000WO-US034956.
2001US-00796498
                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US006666.
2001US-00802706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00860216
2001US-00866028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00866034
2001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00854280
                                                                                                                                                                                                                                                                                                    2000WO-US023328
                                                                                                                                                                                                                                                     2000WO-US015264
                                                                                                                                                                                                                                                               2000WO-US020710
                                                                                                                                                                                                                                                                                       2000WO-US023522
                                                                                                                                                                                                                                                                                                                  2000WO-US030952
                                                                                                                                                                                                                                                                                                                             2000WO-US030873
                                                                                                                                                                                    2000WO-US007532
                                                                                                                                                                                                                                                                           2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP, Beresini M,
Gerritsen ME, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-765392/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ADA75319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAY-2001;
25-MAY-2001;
01-JUN-2001;
01-JUN-2001;
05-JUN-2001;
                                                                                                                                                                                                                                                                                                              08-NOV-2000;
10-NOV-2000;
01-DEC-2000;
20-DEC-2000;
28-FEB-2001;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2001;
09-MAR-2001;
14-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAR-2001;
05-APR-2001;
10-MAY-2001;
                                                                                                                                    02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
20-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                               18-FEB-2000;
18-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JUN-2001;
                                                                                                                                                                                                                                                                                        23-AUG-2000;
05-JAN-2000;
06-JAN-2000;
                       06-JAN-2000;
                                                                                                                                                                                                                                                               28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Smith V,
 Human, PRO; secreted polypeptide; transmembrane polypeptide; tummour necrosis factor-alpha, TNF-alpha, chondrocyte cell; tummour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; immer ear utricular supporting cell; 7-lymphocyte cell; endothelial cell tube formation; bone disorder; carliale cell tube formation; bone disorder; carliale; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; heemoglobin-associated disorder thalassaemia; immune system cell infiltration.
      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                     Æ
```

Gao

22-APR-2002; 2002US-00127846.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidatey, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as phyrisanch probes, in chromosome and gene mapping, in generating pro polypeptides by recombinant techniques and in spentation probes, in chromosome and gene mapping, in generating pro polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful to the development and screening of therapeutically useful antibodies; such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for stimulating differation of inner ear utricular supporting cells, for stimulating cells for ratinge effects, osteoatharities and finemation and for treating cartilage are useful for treating sports-related joint problems, articular cartilage are useful for treating syports-related joint problems. The colls, from cartilage disorders such as sports injulation and contriction colls, for meaning differential cell tube formation and contriction colls, from cartilage disorders such as sports injulation and contriction colls are useful for treating sports-related joint problems. The colls propeptides are also useful for treating various mammalian and contriction controls. The sequence data for this patent is also evel infulation. This casedence represents a human RO polypeptide of the inventor. The capterness of propeptides of polypeptides of polypeptides of polypeptides of pol JSPTO at segdata.uspto.gov/sequence.html

Sequence 90 AA;

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLGILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Gaps 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; Indels 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 90; Conservative Query Match Best Local Similarity g ó

ô

ADA85398 standard; protein; 90 AA 20-NOV-2003 ADA85398; RESULT 61 ADA85398

Novel human secreted and transmembrane protein PRO1159. (first entry)

Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; FPA uptake modulator; cell differentiation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; lung tumoue; colon tumour; brostate tumour; rectal tumour; cervical tumour; liver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker. Human; secreted and transmembrane protein; PRO;

US2003082695-A1 Homo sapiens.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (T). (I) is useful for stimulating the transmembrane) polypeptides (T). (I) is useful for stimulating the calls from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of Incer ear utricular supporting cells, for stimulating the proliferation of function are supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for detecting cells, for stimulating proliferation of endothelial cells, for detecting the prosessor of tumour in a mammal. The tumour is lung, colon, breast, cells, for stimulating genomic and cDNA nucleotide sequences or are useful for isolating genomic and cDNA nucleotide sequence or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding or preparation of PRO polypeptide, for generating transgenic animals which in turn are useful in the development and concome identification, as chromosome marker, and for generating concome identification is school and transmentate of a novel human secreted and transmentate PRO. 0 1 MTFFLSLILLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT Gao W; Gaps New nucleic acid encoding a PRO polypeptide, useful for preparing ecomposition for treating e.g. tumor by gene therapy, or for tissue Zhang Z; Filvaroff E, (.. Query Match
100.0%; Score 462; DB 6; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0; Indels Beresini M, Deforge L, Desnoyers L, Filvard ME, Goddard A, Godowski PJ, Gurney AL, Sher Stewart TA, Tumas D, Watanabe CK, Wood WI, 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 Claim 12; Fig 474; 637pp; English. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072. 03-MAR-2000; 2000US-0187202P. (GETH) GENENTECH INC. WPI; 2003-786909/74. N-PSDB; ADA85397 Sequence 90 AA; Gerritsen ME, Smith V, Ste 01-DEC-2000; Query Match Baker KP, à g ਨੇ

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

ADA84846 standard; protein; 90 AA. RESULT 62 ADA84846

ADA84846;

09 9

(first entry)

20-NOV-2003

```
Novel human secreted and transmembrane protein PRO1159
                                                                                                                                                                    Claim 12; Fig 474; 637pp; English.
                                                                                             05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                     15-MAY-2002; 2002US-00146729.
                                                                                                                         Baker KP, Beresini M,
                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                  Smith V, Stewart TA,
                                                                                                                                          WPI; 2003-786911/74.
                                                                                                                                               N-PSDB; ADA84845.
                                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                     US2003082708-A1.
                                                             Homo sapiens.
                                                                                                                             Gerritsen ME
                                                                                                                                                                                                                                                                                                        polypeptide
                                                                              01-MAY-2003
```

100.0%; Score 462;

Query Match

```
Human, PRO, secreted polypeptide, transmembrane polypeptide, tumour necrosis factor-alpha, TNF-alpha, chondrocyte cell; tumour, cancer, adrenal, lung; colon; breast; prostate, rectum, kidney; cervix, liver, microvascular endothelial cell; glucose; FFA, skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation, bone disorder; cartilage disorder; sports injury; proteoglycan, articular cartilage defect, osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                         1 MIFFLSILLLLUVÇEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                         1 MTFFLSLLLLLVCBAIMRSNSGSNTLBNGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                    Gaps
                    ..
                    Indels
                         .
0
Pred. No. 9.8e-49;
                         Mismatches
                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                               ADB30102 standard; protein; 90 AA.
                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US018824.
98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US020111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019094
98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US020944
99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-APR-2002; 2002US-00124822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028634
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                    20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US01
                         Conservative
  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003073214-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-0CT-1998;
29-0CT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-MAR-1999
                         :06
                                                                                                                                                                                                                                                                                                                                                          ADB30102;
                                                                                                                                                                                                                                                                        RESULT 63
                         Matches
                                                                                                                                                                                                                                                                                            ADB30102
                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of for gene expression in periory cells, for stimulating the proliferation of inner ar utricular supporting cells, cor stimulating the proliferation of Inner ar utricular supporting cells, for stimulating the proliferation of finer ar utricular supporting cells, cor stimulating the proliferation of Flymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for detecting cells, for stimulating proliferation of endothelial cells, for detecting the prosessence of tumour in a mammal. The tumour is lung, colon, breast, cells, for stimulating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome condition of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating concursing its expression in specific cells, tissues or serum, and for affinity purification of a novel human secreted and transmenbrane PRO polyperide or accepting the amino of an ovel human secreted and transmenbrane PRO.
                                                                                                              Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TWR-alpha release;
Jucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumour, colon tumour; breast tumour; prostate tumour; rectal tumour
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New PRO nucleic acid, useful for preparing a composition for treating e.g. tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Filvaroff E, C., Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 6; Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ssini M, Deforge L, Desnoyers L, Filvarv
Goddard A, Godowski PJ, Gurney AL, Shei
art TA, Tumas D, Watanabe CK, Wood WI,
```

WPI; 2003-720081/68.

N-PSDB; ADB30101

```
2000WO-US004914.
2000WO-US005004.
2000WO-US005601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001WO-US020116.
2001WO-US021066.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00802706.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00816744.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00872035.
2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00874503.
2001US-00882636.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00796498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00828366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00854280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00886342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00887879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           001US-00908827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00927796
                                                                                                              99WO-US030720
                                                                                                                                 99WO-US031243
                                                                                                                                                                                                                                                  2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                              2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                                2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US007377
                                                                                          99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-MAY-2000; 2
02-JUN-2000; 2
28-JUL-2000; 2
111-AUG-2000; 2
23-AUG-2000; 2
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
31-DEC-1999;
31-DEB-2000;
32-DEB-2000;
32-DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-AUG-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-MAR-2000;
30-MAR-2000;
```

(GETH) GENENTECH INC.

Sherwood S; Filvaroff E, Beresini M, Deforge L, Desnoyers L, Filvar IB, Goddard A, Godowski PJ, Gurney AL, She tewart TA, Tumas D, Watanabe CK, Wood WI, Baker KP, Beresini M, Gerritsen ME, Goddard Smith V, Stewart TA,

Gao W;

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleorides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proficeration or differentiation of chondrocyte cells and a method for opposition to detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating and in gene therapy. The polymucleotides may also arisense RNA and bny and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful useful in the development and screening of therapeutically useful useful in the development and screening of therapeutically useful antibodies, such as tumours, for stimulating and inhibiting proliferation of medicament for treating a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or grane expression in perioyte cells, for stimulating differation of adipocyte cells, for stimulating cells or talminating differation of adipocyte cells, for stimulating are useful for treating various bone and/or cartilage disorders such as sports injunities and cartilage are useful for treating various mammalian haemoglobin:

Com cartilage are useful for treating sports-related joint problems, and manned disorders such as various thalassaemias and conditions which cartilage are useful for treating various mammalian haemoglobine. The treput way benefit from enhance ô 1 MTFFLSLLLLLLVCEAIWRSNSGSWTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 9 Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; Novel secreted and transmembrane PRO polypeptides useful for stimulating the release of tumor necrosis factor alpha and detecting the presence of 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 0; Gaps 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; cive 0; Mismatches 0; Indels GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 the USPTO website at sequata.uspto.gov. ADA80630 standard; protein; 90 AA Claim 12; Fig 474; 638pp; English. Human PRO polypeptide #237. 20-NOV-2003 (first entry) Conservative tumor in a mammal Similarity Sequence 90 AA; Mac Local Sim 90; ADA80630; 61 Query Match Matches RESULT 64 ADA80630 δ g

```
skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US000376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     000WO-US005004
                                                                                                                                                                                                                                                                                           99WO-US008615.
                                                                                                                                                                                                                                                                                                                             99WO-US020594.
                                                                                                                                                                                                                                                                                                                                                                         99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004341
                                                                                                                                                                                     98WO-US019094
98WO-US019177
                                                                                                                                                                                                      98WO-US019330.
                                                                                                                                                                                                                                         98WO-US022992
                                                                                                                                                                                                                                                 98WO-US024855
                                                                                                                                                                                                                                                           98WO-US025108
                                                                                                                                                                                                                                                                   99WO-US000106
                                                                                                                                                                                                                                                                                   99WO-US005190
                                                                                                                                                                                                                                                                                                            99WO-US012252
99WO-US020111
                                                                                                                                                                                                                                                                                                                                               99WO-US021090
                                                                                                                                                                                                                                                                                                                                                        99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                  99WO~US028313
                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US02B565
                                                                                                                                           98WO-US012456
                                                                                                                                                            98WO-US017888
                                                                                                                                                                                                                                 98WO-US022991
                                                                                                                                                                     98WO-US018824
                                                                                                                  12-APR-2002; 2002US-00121061
                                                                                US2003082761-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                        15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                 02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-FEB-2000;
                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-DEC-1999
                                                                                                01-MAY-2003.
                                                                                                                                                                                              14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                17-SEP-1998;
                                                                                                                                                                                                                         07-0CT-1998;
29-0CT-1998;
                                                                                                                                                                                                                                                                                                     14-MAY-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                15-SEP-1999,
15-SEP-1999,
                                                                                                                                                                                                                                                                                                                                                                                          30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-DEC-1999
22-DEC-1999
                                                                                                                                                                     10-SEP-1998
14-SEP-1998
                                                                                                                                                                                                                                                                                    10-MAR-1999
                                                                                                                                                                                                                                                                                                                               08-SEP-1999
                                                                                                                                                                                                                                                                     05-JAN-1999
                                                                                                                                                                                                                                         29-OCT-1998
                                                                                                                                                                                                                                                   NOV-1998
                                                                                                                                                                                                                                                           DEC-1998
                                                                                                                                                                                                                                                                                                                      -SEP-1
                                                                                                                                                                                                                                                                                             -APR-1
```

```
Beresini M, Deforge L, Desnoyers L, Filvaroff E, G:
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                    2001US-00808689.
2001US-00816744.
2001US-00828366.
2001US-00854208.
2001US-00854280.
                                                                                                                                                                                                                                                                           2001US-00927796
2001US-00931836
                                                             2000WO-US030873
2000WO-US032678
                                                                                  2000WO-US034956
2001US-00796498
                                                                                                 2001WO-US006520
2001WO-US006666
                                                                                                                                                                       2001US-00866034
                                                                                                                                                                               2001WO-US017092
                                                                                                                                                                                      2001US-00872035
2001WO-US017800
                                                                                                                                                                                                    2001US-00874503
2001US-00882636
                                                                                                                                                                                                                                2001US-00887879
2001WO-US020116
                                                                                                                2001US-00802706
                                                                                                                                                          2001US-00860216
                                                                                                                                                                 2001US-00866028
                                                                                                                                                                                                                    00886342
                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                   2001US-
                                                                                                                                   05-APR-2001;
10-MAY-2001;
10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                21-JUN-2001;
22-JUN-2001;
29-JUN-2001;
                                                      08-NOV-2000;
10-NOV-2000;
01-DEC-2000;
    22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                          19-DEC-2001;
                                                                                                                                                                                                                   19-JUN-2001;
                                                                                                                                                                                                                                                       09-JUL-2001;
                          28-JUL-2000;
                                         23-AUG-2000;
24-AUG-2000;
                                                                            20-DEC-2000;
20-DEC-2000;
                                                                                          28-FEB-2001;
28-FEB-2001;
                                                                                                         01-MAR-2001;
                                                                                                                09-MAR-2001;
14-MAR-2001;
                                                                                                                                                                        MAY-2001;
                                                                                                                                                                                              31-JUN-2001;
                                                                                                                                                                                                     35-JUN-2001;
                                                                                                                                                                                                             14-JUN-2001;
                                                                                                                                                                                                                                                                            09-AUG-2001
                                                                                                                                                                                                                                                                                                                       Baker KP,
                                                                                                                                                                                                                                                                                                                               Gerritsen
                                                                                                                                                                                                                                                                                                                                     Smith V,
```

3 Gao

WPI; 2003-755115/71. N-PSDB; ADA80629. New PRO polypeptides useful for treating diabetes, hyper- or hypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart attack, various coagulation disorders and tumors.

Claim 12; Fig 474; 638pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as polymucleotides are useful in molecular biology, including uses as thybridisation probes, in chromosome and gene mapping, in generating and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or

```
antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FFA by skeletal muscle cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating cells for inducing endothelial cell tube formation and for T-lymphocyte cells, for inducing endothelial cell tube formation and for T-lymphocyte cells, for inducing endothelial cell tube formation and for T-lymphocyte cerls, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans of the cartilage are useful for treating sports-related joint problems, arisocated disorders such as various thalasseamis and conditions which may benefit from enhanced local immume system cell infiltration. This sequence data for this parent is also evaliable in electronic format from thom to account from the condition of the condition of the condition of the condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USPTO at segdata.uspto.gov/sequence.html
```

Sequence 90 AA;

```
1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                     Gaps
                                     .,
 Length 90;
                                   Indels
                               0
100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49;
                                     0; Mismatches
                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                        90; Conservative
                     Best Local Similarity
                                        Matches
                                                                                                                                                      à
```

20-NOV-2003 ADA75872; RESULT 65 ADA75872

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothalial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; glucose; FRA; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; remanatoid arthritis; enemglobin-associated disorder thalassaemia;

Homo sapiens.

23-APR-2002; 2002US-00128691.

(GETH) GENENTECH INC

Gao W; Zharg Z; Filvaroff E, (Deforge L, Desnoyers L, Filvar A, Godowski PJ, Gurney AL, She Tumas D, Watanabe CK, Wood WI, Beresini M, Def ME, Goddard A, Stewart TA, Gerritsen ME, Baker KP, Smith V,

Query Match

ADA75872 standard; protein; 90 AA. immune system cell infiltration. Human PRO polypeptide #237. (first entry)

01-MAY-2003.

09-DEC-1999; 99US-0170262P. 01-DEC-2000; 2000MO-US032678. 19-DEC-2001; 2001US-00028072.

WPI; 2003-765414/72

New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleocides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) From human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for opolymucleotides are useful in molecular biology, including uses as thy pridisation probes, in chromosome and gene mapping, in generating so the used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and ecreening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides of medicament for transfund a condition responsive to the polypeptides of antibodies, such as tumours, for stimulating and inhibiting proliferation of or gene expression in periopy cells, for stimulating differentiation of adipocyte cells, for stimulating confidential cells of stimulating confidential cells of stimulating and inhibitines and various bone and/or cartilage disorders such as sports injurate and cartilage are useful for treating sports-related joint problems, cartilage are useful for treating sports-related joint problems, cartilage are useful for treating sports-related joint problems, cassociated disorders such as various thalassaemias and conditions which casponence represents a human PRO polypeptide of the invention. Note: The sequence expresents a human PRO polypeptide of the invention. Note: The sequence expresents a human PRO polypeptide of the invention. Note: The sequence expresents a human PRO polypeptide of the invention. USPTO at segdata.uspto.gov/sequence.html.

Sequence 90 AA;

0; 0; Gaps Length 90; Indels . 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0; 90; Conservative Query Match Best Local Similarity Matches

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVTFTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

8

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

g à q

ਨੇ

9

61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT

RESULT 66 ADA38818

ADA38818 standard; protein; 90 AA. 20-NOV-2003 (first entry) ADA38818;

Human secreted/transmembrane protein PRO1159.

PRO; secreted protein; transmembrane protein; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer.

Homo sapiens.

US2003059780-A1

```
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
16-SEP-1998;
11-SEP-1998;
11-SEP-1999;
11-SE
25-JUN-1998,
25-JUN-1998,
25-JUN-1998,
25-JUN-1998,
25-JUN-1998,
26-JUN-1998,
10-JUL-1998,
10-JU
                                                                                                                                                                                                                                                                                                                                                                                                            04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -AUG-1998;
-AUG-1998;
-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-AUG-1998
   9705-0049787P.
9705-0062250P.
9706-006511P.
9705-006511P.
9705-0065311P.
9705-0066710P.
9805-0078910P.
9805-008122P.
9805-0081752P.
9805-0088176P.
9805-0088176P.
9805-0088178P.
9805-0089178P.
9805-0089178P.
9805-0089178P.
9805-0089178P.
9805-0089178P.
9805-0089178P.
9805-008917P.
9805-0089178P.
9805-0099148P.
                                          14-NOV-2001; 2001US-00991854
                                                                              16-JUN-1997;

17-OCT-1997;

15-NOV-1997;

13-NOV-1997;

24-NOV-1997;

24-NOV-1998;

28-ARR-1998;

28-ARR-1998;

28-ARY-1998;

28-ARY-1998;

20-JUN-1998;

38-JUN-1998;

40-JUN-1998;

40-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3-JUN-1998;

3-JUN-1998;

3-JUN-1998;

3-JUN-1998;

3-JUN-1998;

2-JUN-1998;

3-JUN-1998;

3-JUN-1998;

4-JUN-1998;

4-JUN-1998;

4-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - JUN-1998;
- JUN-1998;
- JUN-1998;
- JUN-1998;
- JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-JUN-1998;
11-JUN-1998;
11-JUN-1998;
11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JUN-1998;
             27-MAR-2003
```

98US - 0097971P.
98US - 0097971P.
98US - 0097979P.
98US - 00979986P.
98US - 00970986P.
98US - 0098014P.
98US - 0100634P.
98WO - US019437.
98WO - US019437.

99WO-US000106. 99WO-US005028. 99US-0123957P.

98US-0090659P.
98US-0090659P.
98US-0090659P.
98US-0091656P.
98US-0091478P.
98US-0091628P.
98US-0095318P.

```
2000WO-US022031
                                  US2003073210-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                         20-APR-1999;
14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
08-SEP-1999;
                                                                                  11-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                 15-SEP-1999
05-OCT-1999
                                                            17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; PRO; secreted polypeptide; transmembrane polypeptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADA47097 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                            15-MAY-2000; 2000WO-US013358.

17-MAY-2000; 2000WO-US013705.

22-MAY-2000; 2000WO-US014041.

30-MAY-2000; 2000WO-US014941.

23-UJW-2000; 2000WO-US01564.

23-UJW-2000; 2000WS-0213637P.

28-UJL-2000; 2000WO-US020710.
                                                                                                                                                                                                                                                                                                         2000WO-US006884.
2000WO-US007377.
2000WO-US008439.
2000WO-US013358.
99WO-US012252.
99US-0141037P.
99US-0144758P.
99US-0144758P.
99US-014522P.
99US-014536P.
                                                                                      99WO-US021090.
99WO-US021547.
99US-0158663P.
99WO-US028313.
                                                                                                                                        99WO-US028301.
99WO-US028634.
99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                    11-AUG-2000; 2000MO-US022031.
23-AUG-2000; 2000MO-US023522.
24-AUG-2000; 2000US-02303328.
07-SEP-2000; 2000US-0230978P.
                                                                                                                                                                                         2000WO-US000219
2000WO-US000376
                                                                                                                                                                                                                             2000WO-US004341
2000WO-US004414
                                                                                                                                                                                                                                                      2000WO-US004914
2000WO-US005004
                                                                                                                                                                                                                                                                                            2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 90; Conservative
                                                 26-JUL-1999;
17-AUL-1999;
17-SEP-1999;
15-SEP-1999;
08-OCT-1999;
08-OCT-1999;
01-DEC-1999;
01-DEC-1999;
01-DEC-1999;
05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                              02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
20-MAR-2000;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA47097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADA47097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
                                                                                                                         98WO-US022992.
98WO-US024855.
98WO-US025108.
99WO-US000106.
                                                                                                                                                                                   99WO-US005028.
99WO-US005190.
99WO-US008615.
99WO-US010733.
99WO-US012552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         000WO-US006884
98WO-US017888
            98WO-US018824
98WO-US019093
                                        98WO-US019094
                                                       98WO-US019177
                                                                     98WO-US019330
                                                                                  98WO-US019437
                                                                                                                                                                                                                                                                        99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US000219
```

```
2001MS-00802406
2001US-00802406
2001US-00816449
2001US-00854208
2001US-00854208
2001US-00854208
2001US-00860216
2001US-00860216
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00860218
2001US-00848503
2001US-00848503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JUN-2001; 2001WO-US020116.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00887879.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUL-2001; 2001US-00908827.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-AUG-2001; 2001US-00924419.
                                                                                       2000WO-US032678,
2000US-00747259,
                                                                                                                                   2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00927796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00931836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00028072
                                                                                                                                                                                                                                                                                      05-APR-2001; 2
10-MAY-2001; 2
10-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                       18-MAY-2001; 2
25-MAY-2001; 2
25-MAY-2001; 2
25-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-JUN-2001;
19-JUN-2001;
20-JUN-2001;
23 - AUG-2000; 24 - AUG-2000; 20 - AUG-2000; 20 - AUG-2000; 20 - AUG-2000; 20 - AUG-2000; 26 - FEB-2001; 28 - FEB-2001; 29 - AUG-2001; 29 - AUG-2001; 20 - A
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2001;
                                                                                                                                                                                                                                             14-MAR-2001;
22-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-AUG-2001;
```

(GETH) GENENTECH INC.

3 Gao Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G: Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

N-PSDB; ADA47096

2003-644800/61.

in in New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 638pp; English.

useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or I-lymphocyte The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides are useful encountered to the proportion of the proportion of the preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are

Gao W;

WPI; 2003-755070/71.

N-PSDB; ADB25392

```
0
various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; periotte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                      USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PRO polypeptide SEQ ID NO 474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADB25393 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-UUN-1999; 99WO-US012252.
25-AUG-1999; 99US-00380137.
30-MAR-2000; 2000WO-US008439.
02-UUN-2000; 2000WO-US01254.
01-DEC-2000; 2000WO-US032878.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-APR-2002; 2002US-00128693.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0098525P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003077715-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-SEP-1998;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB25393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A CONTRACTOR OF THE STATE OF TH
           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO invention and so relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for proliferation presence of a tumnur in a mammal (e.g. adremal, lung, colon, breast, prostate, rettal, kidney, cervical and liver tumnurs). The prolymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating or hybridisation probes are useful in molecular biology, including uses as hybridisation probering PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening or knock-out animals which are useful in the development and screening or knock-out animals which are useful in the development and screening or antibodies are used in preparing a condition responsive to the polypeptides or antibodies are used in preparing antibodies, such as tumnurs, for stimulating differentiation of organization of adipocyte cells, for stimulating of ferentiation of angene expression in pericyte cells, for stimulating the proliferation of inner are usricular such as sports injuries and atticular cartilage are useful for treating sports-related joint problems, articular cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating sports related goint problems, associated disorders such as various thalassaemias and conditions. The sequence represen New isolated, secreted and transmembrane PRO nucleic acids, useful the diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver tumors. Claim 12; Fig 474; 637pp; English

Sequence 90 AA;

09 1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT Gaps 0; Length 90; Indels .. 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Query Match
Best Local Similarity 100.0 ठे

1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKTT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

> 셤 ò

9

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

ADA93569 standard; protein; 90 AA. ADA93569; RESULT 69 ADA93569

(first entry) 20-NOV-2003 Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; carvix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; princyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder;

sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens

US2003077721-A1.

24-APR-2003.

24-APR-2002; 2002US-00131837.

99US-0170262P. 09-DEC-1999;

01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Filvaroff E,

WPI; 2003-755076/71. N-PSDB; ADA93568. New PRO nucleic acid, useful for recombinantly producing a PRO polypeptide and for manufacturing a medicament for diagnosing or treating tumor

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as in chromosome and gene mapping, in generating at the proparing PRO polypeptides by recombinant techniques and in the development and screening of therapentically useful attisense RNA and ploypeptides by recombinant techniques and in useful in the development and screening of therapettically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells for modulating the uptake of stimulating differentiation of angeoryte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating cells and continues and cells, for inducing endochelial cell tube formation and for trating and cells, for inducing and arthrities PRO polypeptides which stimulate the release of proteoglycans from largely are useful for treating sports injuries and arthritis proliferation of treating energing and energing and energing are useful for treating sports injuries and arthritis artifular cells, sand arbhritis gorts relating ports related joint properties. articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from sequence data for this patent is also

Sequence 90 AA;

USPIO at segdata.uspto.gov/seguence.html

Gaps 100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels 90; Conservative Query Match Best Local Similarity Matches

0;

1 MTFFISLLLLLVCBAIMRSNSGSNTLENGYFISRNKENHSQPTQSSLEDSVTFTKAVKTT

à

us-09-989-293a-377.jun1.rag

```
Novel isolated PRO polypeptide useful for treating diabetes, hyper- or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-777249/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; ADB26918.
                                                                                                                                                                                                                                             17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                     09-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2001;
01-JUN-2001;
                                                                                                                                                                                                                                                                                                                              24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                     .0-NOV-2000;
                                                                                                                                                                                                                                                                    30-MAY-2000;
                                                                                                                                                                                                                                                                                 32-JUN-2000;
                                                                                                                                                                                                                                                                                                      11-AUG-2000;
                                                                                                                                                                                                         tumour necrosis factor-alphs; TNF-alphs; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                  Human; PRO; secreted polypeptide; transmembrane polypeptide;
                       90
                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                       ADB26919 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028565.
99WO-US030095.
99WO-US030911.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028313
99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US024855
98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US000106
99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US012252
99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                    2002US-00121051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US018824
98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US021547
                                                                                                                                                                          Human PRO polypeptide #237.
                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                     US2003092147-A1
                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                    11-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-0CT-1998;
29-0CT-1998;
29-0CT-1998;
20-NOV-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-MAR-1999;
10-MAR-1999;
20-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
15-SEP-1999;
                                                                                                                                                    20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-NOV-1999
30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                              15-MAY-2003
                                                                                                                             ADB26919;
                       61
                                                                                 RESULT 70
                                                                                             ADB26919
                                                                                                                                         셤
                       ò
                                             셤
```

```
Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
22-DEC-1999; 99WO-US030720.
30-DEC-1999; 99WO-US031224.
30-DEC-1999; 99WO-US031224.
05-JAN-2000; 2000WO-US000217.
06-JAN-2000; 2000WO-US000277.
06-JAN-2000; 2000WO-US000376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00802706.
2001US-00808689.
2001US-00816744.
2001US-00828366.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   001US-00796498.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    001US-00854208.
001US-00854280.
001US-00860216.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00866028.
2001US-00866034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00874503
2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00886342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US019692
2001US-00887879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001WO-US020116
                                                                                                                                                                                                                                                                                                                                                                                                                                                000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US006666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    000WO-US030873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .000WO-US022031
```

Gao W;

```
\mathcal{Z}
                                                                      The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the projecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colynucleotides are useful in molecular biology, including uses a polyprolation probes, in chromosome and gene mapping, in generating to polynucleotides may also the presence of the proparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development is tuminating a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides of thuman microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating of or gene expression in pericyte cells, for stimulating conditional such an expension of adipocyte cells, for stimulating and condition and/or cartilage disorders such as sports injuries and a stricular cartilage are useful for treating various ammalian haemoglobin.

CC calls, for inducing endothelial cell tube formation and represented as sociated disorders such as various sponse are useful for treating various ammalian haemoglobin.

CC sequence date for this patent is also availabse in electronic format from the useful for this also available in electronic format from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; ostecarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
hypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 462; DB 6; Length 90;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0; Indels
                 attack, various coagulation disorders, tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADB31206 standard; protein; 90 AA
                                                 Claim 12; Fig 474; 660pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB31206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB31206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUN-2000; 2000WO-US015264
28-JUL-2000; 2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000219
                                                                                                                       2002US-00121042
                                                                                                                                                                                                                                               98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                           98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US02B301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US006319
                                                                                                                                                                                                                    98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US
                                                           US2003096386-A1.
                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2000;
                                                                                                                       11-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-DEC-1999;
30-DEC-1999;
                                                                                          22-MAY-2003
                                                                                                                                                                                                                                                                                                                                                          20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                         08-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-NOV-1
```

```
2001US-00854280.
2001US-00860216.
2001US-00866028.
2001US-00866034.
2001WG-US017092.
2001US-00872035.
2001US-00874503.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US021735.
2001US-00908827.
                                                                                                                                                               2001US-00796498
2001WO-US006520
                                                                                                                                                                                                             2001WO-US006666
                                                                                                                                                                                                                                                                      2001US-00816744
2001US-00828366
                                                                                                                                                                                                                                                                                                                 2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00886342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00887879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001WO-US020116
2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00931836
                                                                                                                                                2000WO-US034956
                                                                                                                                                                                                                              2001US-00802706
                                                                                                                                                                                                                                                    2001US-00808689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00927796
11-AUG-2000; 23-AUG-2000; 24-AUG-2000; 28-AUG-2000; 20-NOV-2000; 20-DEC-2000; 20-DEC-2000; 28-FEB-2001; 28-FEB-2001; 29-MAR-2001; 29-MAR-2001; 29-MAR-2001; 20-MAR-2001; 20-MA
                                                                                                                                                                                                                                                                                                             10-MAY-2001;
10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                   01-UIN-2001;
01-UIN-2001;
05-UIN-2001;
14-UIN-2001;
20-UIN-2001;
20-UIN-2001;
21-UIN-2001;
                                                                                                                                                                                                                                                    14-MAR-2001;
22-MAR-2001;
05-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-JUN-2001;
29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUL-2001;
```

(GETH) GENENTECH INC.

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Gerritsen ME, Smith V, Stew Baker KP,

WPI; 2003-786990/74. N-PSDB; ADB31205.

ö Novel isolated PRO polypeptide useful for treating diabetes, hyper- ohypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart attack, various coagulation disorders, tumors.

Claim 12; Fig 474; 638pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, ocion, breast, profete, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also artisense RNA and DNA and in gene therapy. The polymucleotides may also generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for simulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of eliminating differantiation of eliminating the uptake of eliminating differantiation of elimination or elimination of elimination or elimination of elimination or ells, for elimination elimination elimination elimination elimination of elimination of elimination eli stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating

```
the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disconders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteody/cans from cartilage are useful for treating sports-related joint problems, atticular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this partent is also available in electronic format from the USPTO website at segdata.uspto.gov.
                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                            09
                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRO; secreted protein; transmembrane protein; hypertrophy of neonatal heart; angiogenesis; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; T-lymphocyte proliferation; retinal neuron; c-fos induction; adipocyte cell; chondrocyte differentiation; pancreatic beta-cell precursor differentiation; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer; rod photoreceptor cell.
                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                           1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                           Length 90;
                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                         100.0%; Score 462; DB 6;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human secreted/transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADA92939 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US - 0049787P - 97US - 0062250P - 97US - 0065186F - 97US - 0065111P - 97US - 0065311P - 98US - 0078910P - 98US - 0087160P - 98US - 0087160P - 98US - 0087160P - 98US - 0087609P - 98US - 0087627P - 98US - 00880255P - 98US - 00880255P - 98US - 00880255P -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-NOV-2001; 2001US-00990440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 90, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003060407-A1.
                                                                                                                                                                                                                           Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-MAR-1998;
28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADA92939;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA92939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8×300000000000×8
                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                              à
```

BUS-0088029P BUS-0088029P BUS-0088030P BUS-0088136P BUS-0088126P BUS-0088126P BUS-0088117P BUS-0088117P BUS-0088718P BUS-0088718P BUS-0088738P BUS-0088738P BUS-0088738P	98US-0088876P-98US-0088876P-98US-00884105P-98US-0089112P-98US-0089514P-98US-0089538P-98US-0089598P-98US-008958P-98US-008958P-98US-0089947P-98US-0089944P-98US-0089952P-98US-0089954P-98US-98US-98US-98US-98US-98US-98US-98US	8US-00903558 8US-00903588 8US-0090431P 8US-0090431P 8US-0090445P 8US-0090445P 8US-0090542P 8US-009053P 8US-009053P 8US-009059P 8US-009069P 8US-009069P 8US-009069P	BUS-0090863E BUS-0091540P BUS-0091540P BUS-0091478P BUS-0091626P BUS-0091626P BUS-0091678P BUS-0091978P BUS-0091978P BUS-0092472P BUS-0093339P BUS-0093339P BUS-0093339P BUS-0093339P BUS-0093339P BUS-0093339P BUS-00934651P
4 - JUN - 1998 4 - JUN - 1998 4 - JUN - 1998 5 - JUN - 1998 5 - JUN - 1998 6 - JUN - 1998	11 - 70N - 1998; 12 - 70N - 1998; 16 - 70N - 1998; 16 - 70N - 1998; 17 - 70N - 1998; 17 - 70N - 1998; 17 - 70N - 1998; 17 - 70N - 1998; 18 - 70N - 1998; 18 - 70N - 1998; 18 - 70N - 1998; 18 - 70N - 1998; 19 - 70N - 1998; 19 - 70N - 1998; 22 - 70N - 1998; 22 - 70N - 1998;	2.4 UN-1998 4.4 UN-1998 4.4 UN-1998 4.4 UN-1998 4.4 UN-1998 4.4 UN-1998 4.4 UN-1998 5.4 UN-1998 5.4 UN-1998 5.4 UN-1998 5.4 UN-1998 5.4 UN-1998	6-JUN-1998 1-JUL-1998 2-JUL-1998 2-JUL-1998 2-JUL-1998 2-JUL-1998 2-JUL-1998 7-JUL-1998 7-JUL-1998 9-JUL-1998 0-JUL-1998
¥ X X X X X X X X X X X X X X X X X X X	***************************************	7	%

8US - 009528 8US - 009528 8US - 009530 8US - 009531 8US - 009531 8US - 009531 8US - 009531 8US - 00951 8US - 00951	98US-0096766P. 98US-0096778P. 98US-0096731P. 98US-0096891P. 98US-0096894P. 98US-0096894P. 98US-0096894P. 98US-0096995P. 98US-0096995P. 98US-0096995P. 98US-0096995P. 98US-0096995P. 98US-009795P. 98US-0097218P. 98US-0097218P. 98US-0097218P. 98US-0097954P.	8US-0097986 8US-0098014 8US-0100634 8US-0100634 8US-0100638 8WO-US0114 8WO-US02114 8US-0113296 9US-0113295 9US-0141037 9US-0141037 9US-0141037 9US-0144758 9US-0144758	9WO-US0215 9WO-US0215 9WO-US0218 9WO-US028 9WO-US028 9WO-US030 9WO-US030 9WO-US030 9WO-US0003 9WO-US0004 9WO-US0004
4-AUG-1999 4-AUG-1999 4-AUG-1999 4-AUG-1999 4-AUG-1999 0-AUG-1999 0-AUG-1999 1-AUG-1999 1-AUG-1999 7-AUG-1999	AUG-1	6. AUG-199 6. AUG-199 6. SEP-199 6. SEP-199 6. SEP-199 7. SEP-199 7. SEP-199 7. CCT-199 7. CCT-199 5. JAN-199 8. MAR-199 9. JUN-199 0. JUN-199 0. JUN-199 0. JUN-199	5-SEP-199 8-C-71-199 8-C-71-199 0-NOV-199 1-DEC-199 6-DEC-199 6-DE
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	K K K K K K K K K K K K K K K K K K K	**************************************	% % % % % % % % % % % % % % % % % % %

```
2001US-00802706.
2001US-0080689
2001US-00806744.
2001US-00854208.
2001US-00854280.
2001US-008660216.
2001US-008660216.
                                                                                                                                                                                                              99WO-US028313.
                                                                                                                                                                                                                                                                             99WO-US028551.
99WO-US028564
                                                                                                                                                                                                                                                                                                                                                             99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000277
2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US003565
2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-US006520
2001WO-US006666
                                                                                                                               99WO-US020944
                                                                                                                                                99WO-US021090
                                                                                                                                                              99WO-US021547
                                                                                                                                                                                 99WO-US023089
                                                                                                                                                                                                99WO-US028214
                                                                                                                                                                                                                                                                 99WO-US028634
                                                                                                                                                                                                                                                                                                               99WO-US028565
                                                                                                                                                                                                                                                                                                                              99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                               99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00796498
                                                                  99WO-US010733
                                                                                 99WO-US012252
                                                                                                  99WO-US020111
                                                                                                                  99WO-US020594
                                                                                                                                                                                                                                              99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-AUG-2000;
23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
01-MAR-2001;
01-MAR-2001;
01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-MAR-2000;
15-MAR-2000;
20-MAR-2000;
                                             20.APR-1999;
14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-MAR-2000;
                                                                                                                                                                                              29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                           30-DEC-1999
30-DEC-1999
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TWF-alpha release;
glucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumour, preast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                         MTFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                  Length 90;
                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                              ADA61134 standard; protein; 90 AA.
02-MAR-2000; 2000WO-US005841.
15-MAR-2000; 2000WO-US00684.
20-MAR-2000; 2000WO-US00684.
30-MAR-2000; 2000WO-US008439.
15-MAY-2000; 2000WO-US01377.
17-MAY-2000; 2000WO-US013768.
17-MAY-2000; 2000WO-US013705.
22-MAY-2000; 2000WO-US014042.
33-MAY-2000; 2000WO-US014641.
02-JUN-2000; 2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019094.
98WO-US019177.
98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US017888.
98WO-US018824.
98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US022992.
98WO-US024855.
98WO-US025108.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US012456.
98WO-US014552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-MAY-2002; 2002US-00142423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                90; Conservative
                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JS2003049817-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADA61134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          secreted.
                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                   Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human.
                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 73
                                                                                                                                                                                                                                                                                                                                                                                                                               ADA61134
      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A COOR ON THE SECOND SE
```

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the uptake of tralease of TWF-alpha from human blood, for modulating the uptake of glucose or FPA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of Endoughest the binding of the presence of tumour in a mammal. The tumour is lung, colon, breast, corporate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and CDNA nucleotide sequences or interaction. A polymucleotide (II) encoding (I) is useful in chromosome in a ssays to identify other proteins or molecules involved in binding in assays to identify other proteins or marker, and for generating of therapeutically useful reagents, in gene therapy, for knockout animals which in turn are useful in the development and corporate in mapping of propess. An anti-(I) antibody is useful in diagnostic assays for PRO, enconcenting its expression in specific cells, tissues or serum, and for acid sources. (I) and (II) are useful for tissue typing. This is the amino corporation of PRO from recombinant cell culture or natural contractions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New secreted and transmembrane PRO polypeptide and nucleic acid, useful for manufacturing a medicament for diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12; Fig 474; 658pp; English.
20-JUN-2001; 2001WO-US019692.
21-JUN-2001; 2001US-00887879.
22-JUN-2001; 2001WO-US020116.
29-JUN-2001; 2001WO-US021735.
18-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927419.
                                                                                                                                                                                                              2001US-00028072.
                                                                                                                                                                                                                                  10-MAR-2009; 2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                    Goddard A,
                                                                                                                                                                                                                                                                                                                            Beresini M,
                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                            Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                        2003-695893/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ADA61133
                                                                                                                                                                                                                                                                                                                              Baker KP, Ber
Gerritsen ME,
                                                                                                                                                                                      16-AUG-2001;
19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptide.
                                                                                                                                                                                                                                                                                                                                                                               Smith V,
```

Gaps ; 0 ch 100.0%; Score 462; DB 6; Length 90; I Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0; Indels Query Match Best Local Similarity Matches 90; Conserv

Sequence 90 AA;

ö

09

g

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TWF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; PFA; skeletal muscle cell; adipocyte cell; pericyte cell; pericyte cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. Human PRO polypeptide SEQ ID NO 474. ADB24281 standard; protein; 90 AA. 30-MAR-2000; 2000WO-US008439. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072. 22-APR-2002; 2002US-00127901. 98US-0089599P 99WO-US012252 99US-00380137 99WO-US028313 (first entry) US2003077714-A1. Homo sapiens. 17-JUN-1998; 30-NOV-1999; 20-NOV-2003 02-JUN-1999; 24-APR-2003. 25-AUG-1999 ADB24281;

3

Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;

Sherwood S; Filvaroff E, Deforge L, Desnoyers L, Filvar A, Godowski PJ, Gurney AL, She Tumas D, Watanabe CK, Wood WI, Beresini M, De: Gerritsen ME, Goddard Smith V, Stewart TA, Baker KP,

(GETH) GENENTECH INC.

WPI; 2003-755069/71. N-PSDB; ADB24280

nucleic of tumors, secreted and transmembrane PRO polypeptides and nucleic for the diagnosis, prevention and/or treatment of tumor colon, breast, prostate, rectal, cervical and/or liver New isolated, sacids, useful f such as lung, c tumors

Claim 12; Fig 474; 637pp; English.

transmembrance polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO colypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for cetecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, Kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as thyridisation probes, in chromosome and gene mapping, in generating antisense RNA and propertides by recombinant techniques and in cetecting ether transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful caspents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothalial cells, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating croliferation of or gene expression in pericyte cells, for stimulating croliferation of inner ear utricular supporting cells, or T-lymphocyte the proliferation of inner ear utricular supporting cells, is also an interpretation of the proliferation of supporting relations are utricular supporting cells, is a propertical cells or T-lymphocyte. The invention relates to isolated human PRO polypeptides (secreted and

```
various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports release of proteoglycans articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammatian haemoglobinassociated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                      JSPTO at segdata.uspto.gov/sequence.html.
```

Sequence 90 AA;

```
1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                           0; Gaps
Length 90;
                              0; Indels
 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49;
                                0; Mismatches
                                                                                                                        61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                90; Conservative
              Local Similarity
    Query Match
                                 Matches
                                                                                           g
                                                                                                                           Š
                                                                à
```

ö

ADA96610 standard; protein; 90 AA (first entry) 20-NOV-2003 ADA96610; RESULT 75 ADA96610

Human PRO polypeptide #237.

tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sendothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; ostecarthritis; theumatoid arthritis; haemoglobin-associated disorder thalassaemia; Human; PRO; secreted polypeptide; transmembrane polypeptide; immune system cell infiltration.

Homo sapiens

JS2003082690-A1. 01-MAY-2003. 22-APR-2002; 2002US-00127837. 98US-0098750P 01-SEP-1998;

99WO-US020111. 2000WO-US004342 2000WO-US030952 2000WO-US032678 08-NOV-2000; 01-DEC-2000; 01-SEP-1999; 18-OCT-1999; 18-FEB-2000;

(GETH) GENENTECH INC.

2001US-00028072

19-DEC-2001;

Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Gerritsen ME, Goddard A, Smith V, Stewart TA, Tume Beresini M, Baker KP,

WPI; 2003-755107/71. N-PSDB; ADA96609

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymulectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, coroliferation or differentiation of chondrocyte cells and a method for proliferation probes, in chromosome and gene mapping, in general, lung, a hybridisation probes, in chromosome and gene mapping, in generating coll, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in gene therapy. The polymorleotides may also the used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for transferior confirmation of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for transfing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of inner endothelial cells, for modulating the uptake of gluose or PRA by skeletal muscle cells, for stimulating differentiation of adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating are useful for treating sports cells, for stimulating are useful for treating sports-related joint problems, articular cartilage are useful for treating sports-related joint problems, cartilage are useful for treating sports-related joint problems, articular cartilage defects, secentrities and rheumancial arthritis. PRO polypeptides which stimulations mammalian haemoglobinc many penefit from cartilage are useful for treating various mammalian haemoglobinc may benefit from enhanced local immune system 
PRO nucleic acid, useful for preparing a composition for treating e.g.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JSPTO at segdata.uspto.gov/sequence.html
                                                                                         Claim 12; Fig 474; 637pp; English.
                              tumor or for tissue typing.
```

Length 90; Indels 100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49; 0; Mismatches Conservative Query Match Best Local Similarity Matches 90; Conserv Sequence 90 AA;

1 MTFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

> ద 8 Dp

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60

09

Gaps 0

> ADA81182 standard; protein; 90 AA. 20-NOV-2003 ADA81182; ADA81182

Human PRO polypeptide #237. (first entry)

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNR-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; glucose; FFA; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;

```
USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                             Claim 12; Fig 474; 637pp; English.
immune system cell infiltration.
                                                         02-MAR-2000; 2000WO-US005841.
30-MAY-2000; 2000WO-US014941.
01-DBA-2000; 2000WO-US032678.
19-DBC-2001; 2001US-00028072.
                                               23-APR-2002; 2002US-00128690.
                                                                                                  Baker KP, Beresini M, Def
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum?
                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                N-PSDB; ADA81181
                                                                                                                                                                                                                                                                                                                                                                              Sequence 90 AA;
                       US2003082702-A1
             Homo sapiens.
                                   01-MAY-2003.
```

ਨੇ

2003-755111/71.

```
Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; perioyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; artilage disorder; sports injury; proteoglycan; artilcular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                        GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                            ADA96058 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US010733.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US030999
                                                                                                                                                                                                                                                                                              Human PRO polypeptide #237.
                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003082759-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-APR-2002;
                                                                                                                                                                                                                                                     20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-2003
                                                                                                                                                                                                       ADA96058;
61
                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .5-SEP-1
                                                                                                                 RESULT 77
ADA96058
                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the catoralpha (TMF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for condon, breast, prostate, rectal, kidney, cervical and liver tumours). The colymucleotides are useful in molecular biology, including uses a hypridisation probes, in chromosome and gene mapping in generating color polymucleotides may also by properties are useful in gene therapy. The polymucleotides may also generating either transgenic animals or knock-out animals which are cuseful in the development and screening of therapeutically useful reagens. The PRO polypeptides or antibodies are useful in preparing a condition responsive to the polypeptides or antibodies are useful in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of stumours, for stimulating and inhibiting proliferation of stumer ear utricular supporting cells, for stimulating differentiation of adipocyte cells, for stimulating are proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, are considered as sported supportions which simulate the release of proteoglycan cartilage defects, osceoarthritis and rheumatoid architige of the properties such as various benefit from enhan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MIPFISLILILIVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLVCBAIWRSNSGSNTLBNGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                            Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                            Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                         Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
```

```
2001US-00816744.
                                                                                                                                2000WO-US022031
                                                                                                                                                                2000US-00747259.
                                                                                                                                                                               2001WO-US006520
                                                                                                                                                                                          001US-00802706
                                                                                                                                                                                               2001US-00808689
                                                                                                                                                                                                                     2001US-00854280
                                                                                                                                                                                                                                                     2001WO-US017800
                                                                                                                                                                                                                                                           2001US-00874503
                                                                                                                                                                                                                                                                     2001US-00886342
                                                                                                                                                                                                                                                                           2001WO-US019692
                                                                                                                                                                                                                                                                                     2001WO-US020116
                                                                                                                                                                                                                                                                                           001WO-US021066
                                                                                                                                                                                                                                                                                                001WO-US021735
                                                                                                                                                                                                                                                                                                                2001US-00927796
                                                                                                                                                                                                                                                                                                                           19-DEC-2001; 2001US-00028072
                                               24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
                                                                                                                                    23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
                               18-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                     22-MAR-2001;
                                                                                                                                                                                                                                          25-MAY-2001;
                                                                                                                                                                                                                                                           05-JUN-2001;
                                                                                                                                                                                                                                                                     19-JUN-2001;
                                                                                                                                                                                                                                                                                21-JUN-2001;
                                                                                                                                                                                                                                                                                      22-JUN-2001;
                                                                                                                                                                                                                                                                                           29-JUN-2001;
                                                                                15-MAR-2000;
20-MAR-2000;
                                                                                                          22-MAY-2000;
                                                                                                                                                                20-DEC-2000;
                                                                                                                                                                           FEB-2001;
                                                                                                                                                                                                14-MAR-2001;
                                                                                                                                                                                                                                                                14-JUN-2001;
                                                                                                                                                                                                                                                                           20-JUN-2001;
                                                                                                      17-MAY-2000;
                                                                                                               30-MAY-2000;
                                                                                                                                                           DEC-2000;
                                                                                                                                                                                                                    LO-MAY-2001;
                                                                                                                                                                                                                                      MAY-2001;
                                                                                                                                                                                                                                                     JUN-2001;
```

Deforge L, Desnoyers L, Filvaroff E, G; L, Godowski PJ, Gurney AL, Sherwood S; tumas D, Watanabe CK, Wood WI, Zhang Z; Tumas D, Goddard A, Beresini M, (GETH) GENENTECH INC. Smith V, Stewart TA, Gerritsen ME, Baker KP,

Gao W;

WPI; 2003-755114/71. N-PSDB; ADA96057.

ö New isolated PRO polypeptides, useful for treating diabetes, hyper-chypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart attack, various coagulation disorders and tumors.

proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as antisense RNA and in gene therapy. The polymucleotides may also antisense RNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of the argumentally useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of slimitating differentiation of dipocyte cells, for estimulating elements. proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html. The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polypeptides them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis Claim 12; Fig 474; 638pp; English.

Sequence 90 AA;

```
1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                    0; Gaps
100.0%; Score 462; DB 6; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                    Indels
                                                      .,
                                                 0; Mismatches
                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
  Query Match
Best Local Similarity 100.
Matches 90; Conservative
```

ò

ADB26367 standard; protein; 90 AA. ADB26367; ADB26367

20-NOV-2003 (first entry)

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour cancer; adrenal; tumour; cancer; adrenal; ung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; periotte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

```
2000WO-US023522
                                                                                                                                                    99WO-US005190,
                                                                                                                                                         99WO-US008615.
                                                                                                                                                                99WO-US010733.
                                                                                                                                                                                                                                       99WO-US028634
                                                                                                                                                                                                                                                                                                                                            2000WO-US004914
                                  12-APR-2002; 2002US-00121056
                                                                                               98WO-US019330.
                                                                                                               98WO-US022991
                                                                                                                           98WO-US024855
                                                                                                                                  98WO-US025108
                                                                                                                                        901000SD-OM66
                                                                                                                                                                           99WO-US020111
                                                                                                                                                                                              99WO-US021090
                                                                                                                                                                                                         99WO-US023089
                                                                                                                                                                                                               99WO-US028214
                                                                                                                                                                                                                     99WO-US028313
                                                                                                                                                                                                                           99WO-US028409
                                                                                                                                                                                                                                                         99WO-US028565
                                                                                                                                                                                                                                                               99WO-US030095
                                                                                                                                                                                                                                                                           99WO-US030999
                                                                                                                                                                                                                                                                                 99WO-US030720
                                                                                                                                                                                                                                                                                                   2000WO-US000219
                                                                                                                                                                                                                                                                                                        06-JAN-2000; 2000WO-US000277
                                                                                                                                                                                                                                                                                                                     2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                             2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                    2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US007532
           US2003082760-A1.
                                                                                                                                                                                                                                                                                                                    11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                        01-MAR-2000;
02-MAR-2000;
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                   02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                     20-MAR-2000;
                                                                                                                                                                                                                                                                                                   JAN-2000;
                                                                                   14-SEP-1998
14-SEP-1998
                                                                                              6-SEP-1998
                                                                                                         07-0CT-1998
                                                                                                                      29-OCT-1998
                                                                                                                                                                                                                     30-NOV-1999
                                                                                                                                                                                                                            30-NOV-1999
                       01-MAY-2003
                                                                             14-SEP-1998
                                                                                                     .7-SEP-1998
                                                                       10-SEP-1998
                                                                                                                                  01-DEC-1
                                                                                                                                                                                                               29-NOV-
```

2000WO-US032678. 2000US-00747259. 2001US-00802706. 2001US-00808689. 2000WO-US030873 2000WO-US034956 .00796498 2001WO-US006666 2001US-00828366 2001US-00860216 :001US-00874503 2001US-00882636 2001WO-US019692 2001US-00887879 2001WO-US021066 2001US-00924419 2001US-00927796 20-DEC-2000; 28-FEB-2001; 28-FEB-2001; 25-MAY-2001; 25-MAY-2001; 18-MAY-2001; 01-JUN-2001; 01-JUN-2001; 14-JUN-2001; 19-JUN-2001; 01-DEC-2000; 25-MAY-2001; 05-JUN-2001; 21-JUN-2001; 22-JUN-2001; 09-AUG-2001;

(GETH) GENENTECH INC.

Beresini M, Deforge L, Desnoyers L, Filvaroff E, G ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Gerritsen ME, Goddard Smith V, Stewart TA, Baker KP,

WPI; 2003-777204/73. N-PSDB; ADB26366.

New secreted and transmembrane PRO polypeptides and nucleic acids, useful in gene therapy, detecting the presence of tumor in a mammal, or modulating the uptake of glucose or free fatty acid by skeletal muscle cells or adipocyte cells.

Claim 12; Fig 474; 659pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyce cells and a method for detecting the presence of a tumour in environment. I ung, detecting the presence of a tumour in manalal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotiotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also attisense RNA and DNA and in gene therapy. The polynucleotides may also generating either transgenic animals of therapeutically useful the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful captument for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of thuman microvascular endothelial cells for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of inner ear utricular supporting cols or T-lymphocyte

```
various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinmay benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from the USPTO website at sequata.uspto.gov.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; secreted and transmembrane protein; PRO; Tumour necrosis factor alpha release; TNF-alpha release; Jucose uptake modulator; educate modulator; educate unchiation stimulator; cell differentiation stimulator; cell differentiation stimulator; cytokine release stimulator; tumour; lung tumour; prosate tumour; rectal tumour; ervical tumour; cervical tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                     MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                          1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPIQSSLEDSVIPIKAVKTT 60
                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                      Length 90;
                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel human secreted and transmembrane protein PRO1159,
                                                                                                                                                                                                                                                                                      100.0%; Score 462; DB 6; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB21852 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019177.
98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US021141.
98WO-US022991.
98WO-US022992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US024855.
98WO-US025108.
99WO-US000106.
99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002US-00147492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                     Local Similarity 100.
nes 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003082765-A1.
                                                                                                                                                                                                                                                 Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
07-OCT-1998;
29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB21852;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB21852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A CONTRACTOR OF THE STANDARD CONTRACTOR CONT
            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                         ð
```

```
2001US-00860216.
2001US-00866028.
2001US-00866034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US034956
2001US-00796498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US006666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00802706
2001US-00808689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00816744
2001US-00828366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00854280
                                                                                                   99WO-US028301.99WO-US028634.
                                                                                                                                                                           99WO-US030095
                                                                                                                                                                                                                                                             2000WO-US000219
                                                                                                                                                                                                                                                                                                        000WO-US003565
                                                                                                                                                                                                                                                                                                                   000WO-US004341
                                                                                                                                                                                                                                                                                                                                 000WO-US004342
                                                                                                                                                                                                                                                                                                                                                S000WO-US004414
                                                                                                                                                                                                                                                                                                                                                             :000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                     :000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US030873
                                             99WO-US023089
                                                                        99WO-US028313
99WO-US028409
                                                                                                                                                           99WO-US028565
                                                                                                                                                                                       99WO-US030911
                                                                                                                                                                                                       99WO-US030999
                                                                                                                                                                                                                                               99WO-US031274
                                                                                                                                99WO-US028551
                                                                                                                                              99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
                                                                                                                                                                                                                                                                                      06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111-AUG-2000;
23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
13-SEP-1999;
15-SEP-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                           24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAY-2001;
                                                                                                                                                                                                                                                             05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-2000;
                                                                                                                                                                                                                               30-DEC-1999
                                             05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-2000
```

Gao W;

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the crelease of TMR-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of approach of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of Inner ear utricular supporting cells, for stimulating the proliferation of Inner ear utricular supporting cells, for stimulating the proliferation of function of adipocyte cells, for stimulating the proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for detecting cells, for stimulating proliferation of endothelial cells, for detecting the prosestate, rectal, cervical or liver tumour. The oligonuclectide probes cells, for solating genomic and cDNA nuclectide sequences or are useful for isolating genomic and cDNA nuclectide sequence or antisense probes. (I) is also useful so the presputic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding correction. A polymuclectide (II) encoding (I) is useful in the development and correcting of PRO polypeptide, for generating the reharapeutically useful reasences. RNA and DNA, in the correcting its expression in specific cells, in gene therapy, for chromosome identification, as chromosome marker, and for generating or brobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, correcting its expression in specific cells, tissues or serum, and corrected and transmentation of a novel human secreted and transmentane PRO
                                                                                                                                                                                                                                                                                                                                                                                                         New secreted and transmembrane PRO polypeptide useful for detecting the presence of tumor in a mammal, or modulating the uptake of glucose or free fatty acid by skeletal muscle cells or adipocyte cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                      ssini M, Deforge L, Desnoyers L, Filvaroff E, G
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 462; DB 6; Length 90; llarity 100.0%; Pred. No. 9.8e-49; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; Fig 474; 638pp; English
29-JUN-2001; 2001WO-US021066.

09-JUL-2001; 2001WO-US021735.

18-JUL-2001; 2001US-00908827.

06-AUG-2001; 2001US-00924419.

09-AUG-2001; 2001US-0092796.

16-AUG-2001; 2001US-00931836.

19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                         Baker KP, Beresini M,
Gerritsen ME, Goddard
Smith V, Stewart TA,
                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                        WPI; 2003-786920/74.
N-PSDB; ADB21851.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 80
       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
.......... Exclaim the properties transmission prospective; tumour necrosis factor-alpha; TNF-abha; Chondrocyte cell; tumour cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microwascular endothelial cell; glucose; PRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; protecylycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                                   Human; PRO; secreted polypeptide; transmembrane polypeptide;
                                                                                                                                               immune system cell infiltration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US020944
                                                                                                                                                                                                                                                                                                                                           98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                     98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                              98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US004914
                                                                                                                                                                                                                                                                                                                        98WO-US019094
                                                                                                                                                                                                                                                                                                                                                       98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004414
                                                                                                                                                                                                                                                                                                                                  98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                          98WO-US022991
                                                                                                                                                                                                                                   07-MAY-2002; 2002US-00140921
                                                                                                                                                                                                                                                                                                   98WO-US018B24
                               Human PRO polypeptide #237.
           (first entry)
                                                                                                                                                                                           US2003068797-A1.
                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                               08-MAR-1999;
10-MAR-1999;
20-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-DEC-1999;
20-DEC-1999;
22-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                            .6-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                   05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-DEC-1999
          20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             38-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-NOV-1999
                                                                                                                                                                                                                10-APR-2003
                                                                                                                                                                                                                                                                                                   10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUN-19
01-SEP-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-NOV-
```

ö

Gaps

9 9

ADA77631 standard; protein; 90 AA.

ADA77631

ADA77631;

```
000WO-US034956.
                                                                                                                                       001WO-US006520.
                                                                                                                                            001WO-US006666
                                                                                                                                                         .001US-00808689.
                                                                                                                                                                001US-00816744.
                                                                                                                                                                     2001US-00828366.
2001US-00854208.
                                                                                                                                                                                  001US-00854280
                                                                                                                                                                                                   :001US-00866034
                                                                                                                                                                                                                     2001WO-US017800.
                                                                                                                                                                                                                           001US-00874503.
                                                                                                                                                                                                                                001US-00882636
                                                                                                                                                                                                                                             2001WO-US019692
                                                                                                                                                                                                                                                               001WO-US021066
                                                                                                                                                                                                                                                                                2001US-00924419
                                                                                                                                                                                       001US-00860216
                                                                                                                                                                                              2001US-00866028
                                                                                                                                                                                                              2001US-00872035
                                                                                                                                                                                                                                       2001US-00886342
                                                                                                                                                                                                                                                    2001US-00887879
                                                                                              2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-625489/59.
                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ADA77630.
                                                          22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                       23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
                                                                                                                                                   09-MAR-2001;
14-MAR-2001;
22-MAR-2001;
                                                                                                                                                                                                                                                                                                                               Gerritsen ME,
                                                                                                         10-NOV-2000;
01-DEC-2000;
                                                                                                                                  28-FEB-2001;
                                                                                                                                       28-FEB-2001;
                                                                                                                                                                     05-APR-2001;
                                                                                                                                                                                  10-MAY-2001;
                                                                                                                                                                                                               01-JUN-2001;
                                                                                                                                                                                                                           05-JUN-2001;
                                                                                                                                                                                                                                 14-JUN-2001;
                                                                                                                                                                                                                                       19-JUN-2001;
                                                                                                                                                                                                                                             20-JUN-2001;
                                                                                                                                                                                                                                                    21-JUN-2001;
                                                                                                                                                                                                                                                                                06-AUG-2001;
                                                                                                                                                                                              25-MAY-2001;
                                                                                                                                                                                                                     01-JUN-2001;
                                                    17-MAY-2000;
                                                                                                                                                                                                   25-MAY-2001;
                                                                                                                                                                                                                                                         22-JUN-2001
                                                                                                                                                                                                                                                               29-JUN-2001
                                                                                                                                                                                                                                                                                                                                      Smith V,
                                                                                                                                                                                                          25-MAY-
```

(GETH) GENENTECH INC.

Gao W; Filvaroff E, (L, Sherwood S; Gurney AL, She e CK, Wood WI, Deforge L, Desnoyers L, A, Godowski PJ, Gurney Al Tumas D, Watanabe CK, Woc Goddard A, Baker KP, Beresini M, Stewart TA,

Novel isolated, secreted and transmembrane PRO polypeptides e.g. PRO1801 and PRO1114, useful in the preparation of a medicament for treating a condition responsive to PRO polypeptide, and as therapeutic agents e.g.

Claim 12; Fig 474; 659pp; English

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for

colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as antisense RNA and DNA and in gene therapy. The polymucleotides may also contisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing RNO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating continuating the uptake of stimulating of frematiand cells, for stimulating continuation of inner ear utricular supporting cells, for stimulating cells, for inducing endothelial cell tube formation and for treating cells, for stimulating cells, for stimulating cells, for stimulating cells, for stimulating are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides which stimulate the relacase of proteoglycans certicated disorders such as various thalassaemias and conditions which associated disorders such as various thalassaemias and condition. Note: The sequence data for this patent is also available in electronic format from the country of usequence data for this patent is also available in electronic format from the country of useful for treating cells of the invention of the propertion of the problems. the presence of a tumour in a mammal (e.g.

Sequence 90 AA;

0; Gaps Length 90; Indels 0 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; Local Similarity - thes 90; Conservative Query Match Matches

0

9

9

1 MIPFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

à д ò d

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

RESULT 81 ADB1837

ADB18371;

ADB18371 standard; protein; 90 AA.

20-NOV-2003 (first entry)

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; dondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; perioyte cell; perioyte cell; entroy cell; perioyte cell; endothelial cell; perioyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

JS2003077710-A1.

24-APR-2003.

22-APR-2002; 2002US-00127825.

98US-0105169P. 22-0CT-1998;

```
01-SBP-1999; 99WO-US020111.
18-OCT-1999; 99US-00403297.
30-NOV-1999; 99WO-US028313.
18-FEB-2000; 2000WO-US004342.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                               WPI; 2003-755065/71.
                                                   N-PSDB; ADB18370
                                     Gerritsen ME,
                                 Baker KP,
                                        Smith V,
```

(GETH) GENENTECH INC.

Gao W; esini M, Deforge L, Desnoyers L, Filvaroff E, Gr Goddard A, Godowski PJ, Gurney AL, Sherwood S; art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, Stewart TA,

New secreted and transmembrane PRO polypeptides and nucleic acids, useful in gene therapy, in chromosome and gene mapping, as chromosome markers, in tissue typing, and in identifying chromosomes.

Claim 12; Fig 474; 637pp; English.

The invention relates to asolated numan FWD polypeptias (Becreted and transmembrane polypeptides) and the polymyclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TWT-alpha) from human blood, a method for stimulating the proslets and a method for stimulating the prolates of a tumour necrosis.

CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymicleotides are useful in molecular biology, including uses as hypical station probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymycleotides may also be useful in the development and screening of therapeutically useful attention probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymycleotides and useful in the development and screening of knerapeutically useful acceptable of the PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or medicament for treating a condition responsive to the polypeptides or medicament for treating a condition responsive to the polypeptides or stimulating differentiation of adipocyte cells, for stimulating the uptake of glucose or FPA by skeletal muscle cells, for medicament for inner ear usricular califoration of adipocyte cells, for stimulating the proliferation of araphase disorders such as sports injuries and attrities PRO polypeptides which stimulate the release of proteeglycans cells, for attrities and and/or artilage disorders such as sports injuries and attrities and acceptable for treating sports-related joint problems, artilage are useful for treating various mammalian haemoglobin-captable defects, osecarthides such as various thalassaemias and conditions which expense the sequence represents a humaned local immune system cells in elec The invention relates to isolated human PRO polypeptides (secreted and the USPTO website at segdata.uspto.gov.

Sequence 90 AA;

0; Gaps 100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels 90; Conservative Similarity Query Match Best Local S: Matches 90

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT 60 1 MTFFLSLLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

> g ð

9

90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

ADA87054 standard; protein; 90

AA.

ADA87054;

(first entry) 20-NOV-2003 Novel human secreted and transmembrane protein PRO1159.

lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; liver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker. Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FRP uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inihibitor; cytokine release stimulator; tumour;

Homo sapiens.

US2003082709-A1.

01-MAY-2003

15-MAY-2002; 2002US-00146791.

02-JUN-1999; 99WO-US012252. 25-AUG-1999; 99US-00380137. 30-MAR-2000; 2000WO-US008439. 01-DEC-2000; 2000WO-US032678. 98US-0096895P 17-AUG-1998;

(GETH) GENENTECH INC.

Beresini M, Deforge L, Desnoyers L, Filvaroff E, G MB, Goddard A, Godowski PJ, Gurney AL, Sherwood S; stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Stewart TA, Gerritsen ME, Smith V, Stew Baker KP,

WPI; 2003-786912/74. N-PSDB; ADA87053 New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide, for preparing a composition for treating e.g., tumor, or for tissue typing

Claim 12; Fig 474; 637pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the cransmembrane of TWF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle calls or adipocyte cells, for calmulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of Inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, cells, for stimulating proliferation of endothelial cells, for detecting constate, rectal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding increation of PRO polypeptide, for generating transgenic animals or concent animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for succening of therapeutically, as chromosome marker, and for generating cransment of probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, ergenting the expression in Specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural

RESULT 82 ADA87054

```
.;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the release of proteoglycans from cartilage, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of 1-lymphocyte cells, for stimulating the proliferation of 1-lymphocyte cells, for stimulating
                                                                                                                                                                                                               1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gao W;
                                                                                                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New PRO nucleic acid, useful for preparing a composition for treating
This is the amino
                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Filvaroff E, (
L, Sherwood S;
                                                                                                                                              .,
 typing. This is the transmembrane PRO
                                                                                                        Length 90;
                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Deforge L, Desnoyers L, Filvard
A, Godowski PJ, Gurney AL, Sher
Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                              .
0
                                                                                                        th 100.0%; Score 462; DB 7; Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; secreted and transmembrane protein; PRO;
II) are useful for tissue
novel human secreted and
                                                                                                                                                                                                                                                        90
                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                        GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                    ADA88157 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e.g., tumor or for tissue typing,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2000; 2000US-0209832P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US032678.
2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-APR-2002; 2002US-00128684.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Baker KP, Beresini M, Def
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
 sources. (I) and (II) acid sequence of a nov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-786910/74.
                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; ADA88156.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003082700-A1.
                                                                          Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-DEC-2000;
19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-NOV-2003
                                       polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                        ADA88157;
                                                                                                                                                                                                                                                          61
                                                                                                              Query Match
                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                    RESULT 83
                                                                                                                                                                                                                                                                                                                                                                     ADA88157
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                          à
   S S S S X S
```

```
the release of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothalial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and cDNA nucleotide sequences or artisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the Cream of the mapping, in generation of antisense than and concept and dentification, as chromosome arkers, in gene therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g. detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural cources. (I) and (II) are useful for tissue typing. This is the amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inihibitor; cytokine release stimulator; tumour;
ling tumour; preast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MTFFLSLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Score 462; DB 7; Length 90;
; Pred. No. 9.8e-49;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel human secreted and transmembrane protein PRO1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fuman; secreted and transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADA46545 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US012456.
98WO-US014552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019093,
98WO-US019094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-00121050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.
Matches 90, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003054516-Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA46545;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADA46545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPRESENTED TO SERVICE OF THE SERVIC
                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

```
001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US006666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00802706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00808689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00816744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00B28366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00860216.
2001US-00866028.
2001US-00866034.
                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00796498
                                                                                                    99WO-US020944.
                                                                                                                                                                                                                                        99WO-US031274.
                                                                                                                                                                                                                                                                                                                                           2000WO-US006319
2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                          2000WO-US008439
                                                                            99WO-US012252.
                                                                                          99WO-US020594.
                                                                                                                                                 99WO-US028409
                                                                                                                                                          99WO-US028301
                                                                                                                                                                                       99WO-US028565
99WO-US030095
                                                                                                                                                                                                       99WO-US030911
                                                                                                                                                                                                                                                                                                            2000WO-US005004
                                                                                                                                                                                                                                                                                                                           2000WO-US005746
                             98WO-US025108
99WO-US000106
                                             99WO-US005028
                                                      99WO-US005190
                                                             99WO-US008615
                                                                    99WO-US010733
                                                                                                          99WO-US021090
                                                                                                                99WO-US021547
                                                                                                                          99WO-US023089
                                                                                                                                         99WO-US028313
                                                                                                                                                                         99WO-US028551
                                                                                                                                                                                                               99WO-US030999
                                                                                                                                                                                                                       99WO-US030720
                                                                                                                                                                                                                               99WO-US031243
                                                                                                                                                                                                                                                      2000WO-US000277
                                                                                                                                                                                                                                                              2000WO-US000376
                                                                                                                                                                                                                                                                             2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                           2000WO-US007377
                                                                                                                                                                                                                                                             06-JAN-2000; 2
11-FEB-2000; 2
18-FEB-2000; 2
22-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                28-JUL-2000)
11-MG-2000)
23-AUG-2000)
24-AUG-2000)
08-NOV-2000)
110-NOV-2000)
20-DEC-2000)
                                                                                                                                                                                                               20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2001;
09-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-MAR-2001;
22-MAR-2001;
                                                                                                 13-SEP-1999;
15-SEP-1999;
15-SEP-1999;
                                                                                                                         05-OCT-1999;
29-NOV-1999;
30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                   15-MAR-2000;
20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                  21-MAR-2000;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                  17-MAY-2000;
22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-FEB-2001;
                                                     10-MAR-1999;
20-APR-1999;
14-MAY-1999;
                                                                                                                                                                                                                                              05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                            10-MAR-2000;
                                      05-JAN-1999;
08-MAR-1999;
                                                                                           08-SEP-1999;
                                                                                                                                                                                                                                                                                                                     01-MAR-2000
02-MAR-2000
                       20-NOV-1998;
                                                                             02-JUN-1999
                                                                                    01-SEP-1999
                                                                                                                                                                                                                                                                                                                                    02-MAR-2000
```

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the cransmembrane of TWI-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle calls or adipocyte calls, for stimulating the proliferation of or gene expression in pericyte calls, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of frommer are utricular supporting calls, for stimulating the proliferation of frommer are utricular supporting calls, for stimulating the proliferation of from FRC calls, for inhibiting the binding of the release of a cytokine from PBMC calls, for inhibiting the binding of the release of a cytokine from PBMC calls, for inhibiting the binding of the release of tumour in a mammal. The tumour is lung, colon, breast, calls, for stimulating proliferation of endothelial calls, for detecting the prosestate, rectal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDMA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome cond gene mapping, in generation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for knockout animals which in turn are useful in diagnostic assays for PRO, e.g. chromosome identification, as chromosome marker, and for generating conting its expression in specific calls, its suse or serum, and for affinity purification of RNO from recombinant call culture or natural calls sources. (I) and (II) are useful for tissue typing. This is the amino call sequence of a novel human secreted and transmembrane PRO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New PRO nucleic acid, useful for preparing a composition for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                      Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                   Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 462; DB 7; Length 90; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Fig 474; 200pp; English.
                                                                05-JUN-2001; 2001US-00874503.
14-JUN-2001; 2001US-008853636.
19-JUN-2001; 2001US-00886342.
20-JUN-2001; 2001US-00887879.
                                                                                                                                                                                 2001WO-US020116.
2001WO-US021066.
2001WO-US021735.
                                                                                                                                                                                                                                                    18-JUL-2001; 2001US-00908827.
06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927796.
                                           2001WO-US017800.
2001US-00874503.
                                                                                                                                                                                                                                                                                                                       16-AUG-2001; 2001US-00931B36
19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                   Baker KP, Beresini M, De
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum
                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-521853/49.
N-PSDB; ADA46544.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                                                                                                                                 22-JUN-2001; 29-JUN-2001; 209-JUL-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               e.g., tumor.
à
```

o O

9 9

1 MIPFIGLILILIVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT

d à

61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT

```
ПP
                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial of the modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for
                                                                                                                                                                                               tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endochelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid, useful for preparing a composition for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                     PRO; secreted polypeptide; transmembrane polypeptide;
 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e.g., tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUN-1998; 98US-0089599P.
02-JUN-1999; 99W0-US01252.
25-AUG-1999; 99W0-US0281137.
30-NOV-1999; 99W0-US0281137.
310-MAR-2000; 2000W0-US03678.
19-DEC-2001; 2001US-00028072.
                                                                       ADB28575 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                               22-APR-2002; 2002US-00127851
                                                                                                                                                           Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goddard A,
                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2003-777202/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-777202/
N-PSDB; ADB28574.
                                                                                                                                                                                                                                                                                                                                                                        JS2003082699-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerritsen ME,
Smith V, Stewa
                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                               20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baker KP,
                                                                                                   ADB28575;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New PRO
                                              RESULT 85
                                                           ADB28575
```

```
0;
stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating arthritis. PRO polypeptides which stimulate the release of proteoglycans arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from the USPTO website at seqdata.uspto.gov.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, PRO, secreted polypeptide, transmembrane polypeptide, tumour necrosis factor-alpha, TNF-alpha, chondrocyte cell; tumour; acancer, adrenal, lung, colon, breast, prostate, rectum, kidney, cervix, liver, microvascular endothelial cell; glucose, FFA, skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; Primphocyte cell; endothelial cell tube formation, bone disorder, cartilage disorder; sports injury, proteodyycan, articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTFFLSLLLLLUCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Deforgre L, Desnoyers L, Filvaroff E;
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLACEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB29127 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-NOV-2000; 2000WO-US030873.
01-DEC-2000; 2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-APR-2002; 2002US-00131836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0170262P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PRO polypeptide #237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gerritsen ME,
Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-777203/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ADB29126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003082706-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gao W, Ge
Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADB29127;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 86
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-labba (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adremal, lung, colon, breast, prostate, rettal, kidney, cervical and liver tumours). The polynucleotides are useful in melocular biology, including uses a pyrides are useful in chromosome and gene mapping, in generating colon, breast, prospections by recombinant techniques and in the development and screening of knock-out animals which are colored in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful set treating a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of manner and expensive to the polypeptides or summals which are proliferation of of mere expression in pericyte cells, for stimulating differentiation of adipocyte cells, for stimulating and color of inner ear utricular such as sports injuries and articular cartilage are useful for treating various memalian hamoglobin-associated disorders such as various thalassamias and condition. This associated disorders such as various thalassamias and condition. Note: The sequence tapersents a human PRO polypeptide of the invention of the usefulate useful solvations thalassamias and condition. Note: The sequence responsive and such as various also various thalassamias and condition.
New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.
                                                                                        Claim 12; Fig 474; 637pp; English
```

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Indels 0; Gaps 100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; 0; Mismatches 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 90; Conservative Query Match Best Local Similarity Sequence 90 AA; Matches g ð

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

ABO53223 standard; protein; 90 AA (first entry) 14-OCT-2003 ABO53223; AB053223 RESULT

Human secreted/transmembrane protein PRO1159.

Human; secreted protein, transmembrane protein, PRO; adrenal cortical capillary endothelial cell; angiogenesis; wound healing; diabetes; obesity; hyper-insulinaemia; hypo-insulinaemia; chondrocyte redifferentiation; bone disorder; cartilage disorder; sports injury; arthritis; kidney mesangial cell proliferation; kidney disorder; berger disease; neuropathy; cooliac disease; dermatitis herpetiformis; Crohn's disease; tumour; cancer.

Homo sapiens

9705-0065311P 9705-0065710P 9805-0081322P 9805-0081322P 9805-0081763P 9805-0081763P 9805-0081763P 9805-0081763P 9805-0081763P 9805-0081763P 9805-008102P 9805-008102P 9805-008103P 9805-008812P 9805-008814P 9805-008818P 9805-008818P 98US-0089948P. 98US-0089952P. 98US-0090246P. 98US-0090252P. 98US-0089907P 98US-0090535P 98US-0090254P 98US-0090431P 2001US-00998156 98US-0090355P 98US-0090429P US2003044806-A1. 15-NOV-2001; 7-JUN-1998; 24-JUN-1998 24-JUN-1998 04-JUN-1998 7-JUN-1998 8-JUN-1998 9-JUN-1998 05-JUN-1998 L-JUN-1998 06-MAR-2003 1-JUN-1

```
9805-0090669P

9805-0090669P

9805-0090663P

9805-009063P

9805-009163P

9805-009163P

9805-0091648P

9805-0091648P

9805-009163P

9805-009169P

9805-009169P

9805-009173P

9805-009169P

9805-009169P

9805-009169P

9805-009169P

9805-009169P

9805-009169P

9805-009169P

9805-009169P

9805-009169P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US019437.
98WO-US021141.
98WO-US025108.
98US-0113296P.
98US-0090542P.
98US-0090557P.
98US-0090676P.
98US-0090678P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0100634P.
98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0097986P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0098014P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0100858P
24-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
26-JUN-1998;
26-JUN-1998;
01-JUL-1998;
01-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
02-JUL-1998;
03-JUL-1998;
03-JUL-1998;
04-JUL-1998;
07-JUL-1998;
07-JUL-1998;
07-JUL-1998;
                                                                                                                                                                          10-JUL-1998;
20-JUL-1998;
30-JUL-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                        04-AUG-1998;
04-AUG-1998;
10-AUG-1998;
10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                       12-AUG-1998;
13-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                  18-AUG-1998;
19-AUG-1998;
20-AUG-1998;
24-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                      17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                     -AUG-1998;
-AUG-1998;
-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                   04-AUG-1998;
                                                                                                                                                                                                                                                                                11-AUG-1998
                                                                                                                                                                                                                                                                                                               17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                             18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                   18-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                      17-AUG-1998
17-AUG-1998
```

```
MTFFLSLILLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, PRO, secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha, TNF-alpha, chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast, prostate, rectum, kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLLLLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADA77079 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                       2000WO-US004341.
2000WO-US004414.
2000WO-US004914.
 99WO-US000106.
99WO-US005028.
99US-0123957P.
99WO-US012252.
                                                 99US-0141037P.
99US-014478P.
99US-014478P.
99US-014622P.
99US-0146222P.
99US-014622P.
99US-0149396P.
                                                                                                                                                      99US-0158663P.
99WO-US028313.
99WO-US028301.
                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US013358.
2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                    99WO-US030911
                                                                                                                                                                                                                                              2000WO-US000376
2000WO-US003565
                                                                                                                                                                                                                                                                                                                                    2000WO-US006319
2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                               2000WO-US007377
2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US020710
                                                                                                                                                                                                                                    2000WO-US000219
                                                                                                                                                                                                                                                                                                              2000WO-US005004
                                                                                                                                                                                                                                                                                                                            2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100.
nes 90; Conservative
                                                                                                                                                                                                                                 05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
12-FEB-2000;
24-FEB-2000;
24-FEB-2000;
02-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAR-2000;
15-MAY-2000;
22-MAY-2000;
30-MAY-2000;
30-MAY-2000;
31-MAY-2000;
05-JAN-1999;
08-MAR-1999;
02-MUN-1999;
02-JUN-1999;
07-JUL-1999;
07-JUL-1999;
26-JUL-1999;
26-JUL-1999;
15-SEP-1999;
15-SEP-1999;
15-SEP-1999;
16-DEC-1999;
01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADA77079;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 88
  à
```

ö

9

Homo sapiens

```
99WO-US030720.
99WO-US031243.
                                                                                                                                                                                                                                                                                                                             99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004914.
                                                                                                                                                                                                                                                                                                       99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                          2000WO-US000219.
                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US004342.
2000WO-US004414.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US007377
2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US008439
2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US023522
2000WO-US023328
                                                                                                                                                                                                    99WO-US010733
99WO-US012252
                                                                                                                                                                                                                                                                                99WO-US028409
                                                                                                                                                                                                                                                                                       99WO-US028301
                                                                                                                                                                                                                                                                                               99WO-US028634
                                                                                                                                                                                                                                                                                                              99WO-US028564
                                                                                                                                                                                                                                                                                                                      99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                  99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US005601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US014042
                                                     97WO-US005230
98WO-US012456
                                                                           98WO-US017888
98WO-US018824
                                                                                                                 98WO-US019330
                                                                                                                                                                                     99WO-US005190
                                                                                                                                                                                                                   99WO-US020111
                                                                                                                                                                                                                            99WO-US020594
                                                                                                                                                                                                                                  99WO-US020944
                                                                                                                                                                                                                                                                99WO-US028214
                                                                                                                                                                                                                                                                        99WO-US028313
                                      10-MAY-2002; 2002US-00143032
                                                                                           98WO-US019093
                                                                                                 98WO-US019094
                                                                                                                                98WO-US021141
                                                                                                                                                98WO-US022992
                                                                                                                                                      98WO-US024855
                                                                                                                                                               98WO-US025108
                                                                                                                                                                      99WO-US000106
                                                                                                                                                                             99WO-US005028
                                                                                                                                                                                             99WO-US008615
                                                                                                                                                                                                                                          99WO-US021090
                                                                                                                                                                                                                                                  99WO-US021547
                                                                                                                                         98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
21-MAR-2000; 3
30-MAR-2000; 3
17-MAY-2000; 2
                                                                                                                                                                                                                                                                                                                                                          30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2000;
02-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2000;
24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                        06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                              24-FEB-2000;
24-FEB-2000;
                                                                                                         14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
07-0CT-1998;
29-0CT-1998;
20-NOV-1998;
01-DEC-1998;
                                                                                                                                                                     05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
                                                                                                                                                                                                    14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                 15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                              :6661
                                                                                                                                                                                                                                   13-SEP-1999,
15-SEP-1999,
                                                                                                                                                                                                                                                                       30-NOV-1999
30-NOV-1999
                                                                                                                                                                                                                                                                                               999
                                                                                    10-SEP-1998
                                                                                            14-SEP-1998
                                                                                                   14-SEP-1998
                      27-MAR-2003
                                                                                                                                                                                                                                                                                              01-DEC-
```

10-NOV-2000; 2000WO-US030873. 10-NOV-2000; 2000WO-US030873. 20-DEC-2000; 2000WO-US032678. 20-DEC-2000; 2000WO-US034956. 28-FEB-2001; 2001WS-00796498. 28-FEB-2001; 2001WS-US006520. 01-MAR-2001; 2001WS-US006666. 05-MAR-2001; 2001WS-00808689. 22-MAR-2001; 2001WS-0081869. 10-MAY-2001; 2001WS-0081836. 10-MAY-2001; 2001WS-0081836. 10-MAY-2001; 2001WS-008182836. 10-MAY-2001; 2001WS-008182836. 2001US-008B7879. 2001WO-US020116. 2001WO-US021066. 2001WO-US017092. 2001US-00872035. 2001WO-US017800. 2001US-00874503. 06-AUG-2001; 2001US-00924419. 2001US-00866028. 2001US-00866034. 2001US-00882636. 2001US-00886342. 2001WO-US019692 2001WO-US021735 18-JUL-2001; 2001US-00908827 16-AUG-2001; 2001US-00931836 19-DEC-2001; 2001US-00028072 01-JUN-2001; 2 01-JUN-2001; 2 05-JUN-2001; 2 14-JUN-2001; 2 19-JUN-2001; 2 20-JUN-2001; 2 21-JUN-2001; 2 22-JUN-2001; 2 29-JUN-2001; 2 25-MAY-2001; 25-MAY-2001; 25-MAY-2001; 08-NOV-2000;

(GETH) GENENTECH INC.

3 Gao Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Filvaroff E, (Baker KP, Beresini M, Def Gerritsen ME, Goddard A, Smith V, Stewart TA, Tuma

WPI; 2003-540684/51. N-PSDB; ADA77078 New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or cancer.

Claim 12; Fig 474; 660pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal leg a derenal, lung, proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as colon probes, in chromosome and gane mapping, in generating at the proparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or knock-out animals which are used contained by the prolymetides or medicament for treating a condition responsive to the polypeptides or antibodies, are used in preparing a condition responsive to the polypeptides or antibodies, are used in preparing a condition responsive to the polypeptides or antibodies, and differentiation of adipocyte cells, for stimulating the uptake of stimulating differentiation of adipocyte cells, for stimulating continulating cells, for stimulating continulating continulating continulating cells, for stimulating continulating continulating continulating continulating continulating cells, for stimulating continulating cells, for stimulating continulating cells, for stimulating cells, cells, for stimulating cell

```
98US - 0088167P

98US - 0088202P

98US - 0088217P

98US - 0088738P

98US - 0088738P

98US - 0088738P

98US - 0088742P

98US - 0088742P

98US - 0088742P

98US - 0088824P

98US - 0089824P

98US - 0089512P

98US - 0089512P

98US - 0089538P

98US - 0089538P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9805-0090429P

9805-0090441P

9805-0090445P

9805-0090442P

9805-0090442P

9805-0090642P

9805-0090642P

9805-0090642P

9805-0090642P

9805-0090642P

9805-009069P

9805-0091646P

9805-0091646P

9805-0091646P

9805-0091646P

9805-0091648P

9805-0091648P
                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0089907P.
98US-0089908P.
98US-0089947P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0089952P.
98US-0090246P.
98US-0090252P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0095301P.
98US-0095302P.
98US-0095318P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0089948P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0090355P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-JUL-1998;
10-JUL-1998;
20-JUL-1998;
30-JUL-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                       17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JUN-1998;
18-JUN-1998;
19-JUN-1998;
19-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                            17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                             7-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                               8-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8661-NUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-JUN-1998
                                                        05-NUV-20
1-NUV-80
     various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence.html.
                                                                                                                                                                                                                                                                                                                          1 MIPFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                100.0%; Score 462; DB 7; Length 90; llarity 100.0%; Pred. No. 9.8e-49; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human; tumour; cancer; colorectal cancer; gene therapy; chondrocyte differentiation; VEGF inhibition; vascular endothelial growth factor; Alzheimer's disease; Parkinson's disease; atherosclerosis; cystic fibrosis; multiple sclerosis; ovarian cancer; tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human secreted/transmembrane polypeptide PRO1159.
                                                                                                                                                                                                                                                                                                                                                                             90
                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADA22500 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-0049787P.
97US-0065250P.
97US-0065111P.
97US-0065311P.
97US-0065311P.
97US-0076971P.
97US-0076971P.
97US-0076971P.
97US-0078971P.
97US-008760P.
97US-008802P.
97US-008802P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-NOV-2001; 2001US-00989726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                    Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003040473-A1.
                                                                                                                                                                                                    Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-OCT-1997;
05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADA22500;
                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA22500
                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\f
```

```
2000WO-US000219.
2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
2000WO-US004414.
98US-0095321P.
98US-0095325P.
98US-0095325P.
98US-009612P.
98US-0096143P.
98US-0096143P.
98US-0096146P.
98US-009673P.
98US-009679P.
98US-009679P.
98US-009679P.
98US-009689P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US004914.
2000WO-US005004.
2000WO-US005841.
                                                                                                                                                                                                                                                                                      98US-0097979P.
98US-0097986P.
98US-0098014P.
98US-0098525P.
                                                                                                                                                                                                                                                                                                                         98WO-US019330.
98WO-US019330.
98US-0100858P.
                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0144758P.
99US-0145698P.
99US-0146222P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US006884.
2000WO-US007377.
2000WO-US008439.
                                                                                                                                                                                                                                                                                                                                                             98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                               99WO-US005028
99US-0123957P
                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0141037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0149396P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028634
99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                              98US-0113296P
                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0158663P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028313
                                                                                                                                                                                                                                                                                                                                                   98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                     98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                       90T000SD-0M66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
24-FEB-2000;
24-FEB-2000;
         04-AUG-1998;
10-AUG-1998;
10-AUG-1998;
10-AUG-1998;
11-AUG-1998;
11-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                           17-AUG-1998
17-AUG-1998
18-AUG-1998
18-AUG-1998
18-AUG-1998
18-AUG-1998
19-AUG-1998
20-AUG-1998
26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                   01-DEC-1998;
22-DEC-1998;
05-JAN-1999;
08-MAR-1999;
12-MAR-1999;
02-JUN-1999;
07-JUL-1999;
                                                                                                17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-SEP-1999;
08-OCT-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                               26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                        16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                   17-SEP-1998
                                                                                                                                                                                                                                                                                                                  31-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-SEP-1999
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; secreted and transmembrane protein; PRO; Tumour necrosis factor alpha release; TWF-alpha release; TUM-alpha release stimulator; call differentiation inhibitor; cytokine release stimulator; tumour; lung tumnour; breast tumour; prostate tumour; rectal tumour; cervical tumour; inver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
                                                                                                                                                                                                                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel human secreted and transmembrane protein PR01159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADA88709 standard; protein; 90 AA.
2000WO-US013358.

2000WO-US014042.

2000WO-US014941.

2000WO-US015264.

2000WS-US0237P.

2000WS-US02031.

2000WO-US022031.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US025108.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-APR-2002; 2002US-00124819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US014552
98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US020111
99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003073213-A1
15-MAY-2000; 22-MAY-2000; 22-MAY-2000; 20-MAY-2000; 20-JUN-2000; 23-JUN-2000; 28-JUN-2000; 23-AUG-2000; 20-AUG-2000; 20-AU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-OCT-1998;
29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAR-1999
20-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADA88709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A CONTRACTOR OF THE SECOND SEC
           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

us-09-989-293a-377.junl.rag

```
2000WO-US004914.
2000WO-US005004.
2000WO-US005601.
2000WO-US005746.
                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00816744.
2001US-00828366.
                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00854208.
2001US-00854280.
2001US-00860216.
                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2001; 2001WO-US006666.
09-MAR-2001; 2001US-00802706.
14-MAR-2001; 2001US-00808689.
                                                                                                                                            2000WO-US000277.
2000WO-US000376.
2000WO-US003565.
                                                                                                                                                                                                                                                                          2000WO-US014042
                                                                                                                                                                                                                                                                                        2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                           2000WO-US034956.
2001US-00796498.
                                                                                                                                                                                                                                                                                                                                                                          2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00866028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00866034.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US017800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00874503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00924419
                                                                                                                99WO-US030720
                                                                                                                                                                                                                                                           2000WO-US008439
                                                            99WO-US028634
                                                                   99WO-US028551
                                                                                         99WO-US030095
                                                                                                 99WO-US030911
                                                                                                        99WO-US030999
                                                                                                                                                                                                                                                                                               28-JUL-2000; 20
                                                                                                                                                                                                                                                                                                            23-AUG-2000; 2
24-AUG-2000; 2
08-NOV-2000; 2
10-NOV-2000; 2
01-DEC-2000; 2
20-DEC-2000; 2
28-FEB-2001; 2
                                                                                                                                                                                                     01-MAR-2000; 2
02-MAR-2000; 2
02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
21-MAR-2000; 2
13-SEP-1999;
15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
03-DEC-1999;
04-DEC-1999;
05-DEC-1999;
06-JAN-2000;
06-JAN-2000;
06-JAN-2000;
118-FEB-2000;
12-FEB-2000;
24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                      10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                    18-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-JUN-2001;
                                                                                                                                                                                                                                                                   17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-JUN-2001;
```

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the crelease of TWF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ar utricular supporting cells, for stimulating the proliferation of inner ar utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of for a utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating for innibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, colls, for innibiting the originate or detecting transfers probes. (1) is also useful as therapeutic agent. For is a series or colors in the originate probes. (2) is also useful as therapeutic agent. For is useful in a sasay to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding or interaction. A polymucleotide (1) encoding (1) is useful in chromosome identification, as chromosome marker, and for generating of therapeutically useful reagents, in gene therapy. for knockout animals which in turn are useful in the development and contropose. An anti-(1) antibody is useful in diagnostic assays for pRO, engaginity purification, as chromosome marker, and for generating contenting its expression in specific cells, tissues or serum, and for detecting its expression in specific cells, tissues or serum, and for collinity purification of PRO from recombinant cell culture or natural collinity purification of PRO from recombinant cell culture or natural ended and proper pr
                                                                                                                                                                                                                                                                                                                         New secreted and transmembrane PRO polypeptides and nucleic acids, useful in gene therapy, detecting the presence of tumor in a mammal, or modulating the uptake of glucose or free fatty acid by skeletal muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                    Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSELLLIVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                               ssini M, Deforge L, Desnoyers L, Filvaroff E, G
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
rrf TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Fig 474; 659pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADA97714 standard; protein; 90 AA.
09-AUG-2001; 2001US-00927796.
16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                        cells or adipocyte cells.
                                                                                                                                                  Baker KP, Beresini M,
                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                      Stewart TA,
                                                                                                                                                                                                                                                   WPI; 2003-743816/70.
N-PSDB; ADA88708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 90 AA;
                                                                                                                                                                         Gerritsen ME,
Smith V, Stew
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 91
ADA97714
  XXEX
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
```

0

Sequence 90 AA;

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; tumour necrosis factor-alpha; TNP-alpha; chondrootyce cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; heematoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003082686-A1.

01-MAY-2003.

19-APR-2002; 2002US-00125926.

05-JUN-2000; 2000US-0209832P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

GETH) GENENTECH INC.

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W; Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-755106/71. N-PSDB; ADA97713. Isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 666pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polypuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the factor-alpha (TWF-alpha) from human blood, a method for stimulating the prosted. From human blood, a method for stimulating to proliferation or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for oplon, breast, prostate, rectal, kindrey, cervical and invertunouse). The colymuclectides are useful in molecular biology, including uses as a hybridisation probes, in chromosome and gene mapping, in generating and intesense RNA and in gene therapy. The polymuclectides may also antisense RNA and in gene therapy. The polymuclectides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening or knock-out animals and inconsection of screening of reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies are used in preparing and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating differation of adipocyte cells, for stimulating differation of adipocyte cells, for stimulating cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating arthritis and arthritis. PRO polypeptides which stimulate the release of proceedycans from carthrides are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid attrities and sequence represents a human PRO plypeptide of the invention. Note: The sequence data for this patent is also a

```
ó
                                                 09
                                                                         1 MIFFELLLILLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT 60
                                                                                                                                                                                                                                                                                                tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                   1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                           Gaps
                           .
0
                                                                                                                                                                                                                                                                                         Human; PRO; secreted polypeptide; transmembrane polypeptide;
  Length 90;
                          0; Indels
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                        ADB27471 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0062250P.
97US-0062285P.
97US-0062287P.
97US-0063155P.
97US-0063814P.
97US-0063045P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0059117P.
97US-0059122P.
97US-0059184P.
97US-0059263P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0059352P.
97US-0059588P.
97US-0059836P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0063127P.
97US-0063127P.
97US-0063327P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0063329P.
97US-0063550P.
97US-0063561P.
97US-0063704P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0056974P.
97US-0059113P.
97US-0059115P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0063733P,
97US-0063735P,
97US-0063738P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002US-00121049
                                                                                                                                                                                                                                                                Human PRO polypeptide #237.
                                                                                                                                                                                                                                         (first entry)
                          90; Conservative
              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003022239-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                         20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-SEP-1997
17-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-OCT-1997
24-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-OCT-1997
                                                                                                                                                                                                                 ADB27471;
  Query Match
Best Local
                           Matches
                                                                                                                                                                 RESULT 92
                                                                                                                                                                                                                 DP
                                                                                                    à
                                                                                                                         g
```

7US-0064248 7US-0065186 7US-0065186 7US-0066364 7US-0066511 7US-0066511 7US-0066710 7US-0069710 7US-0069710 7US-0069710 7US-0069710 7US-0069710 7US-0069710 7US-0069710 7US-0069710 7US-0069710	9802 - 0.07791P. 9801S - 0.07791P. 9801S - 0.07791P. 9801S - 0.07964P. 9801S - 0.07964P. 9801S - 0.07964P. 9801S - 0.07964P. 9801S - 0.08165P. 9801S - 0.08165P. 9801S - 0.08169P. 9801S - 0.08169P. 9801S - 0.0813122P. 9801S - 0.0813122P. 9801S - 0.08149P. 9801S - 0.084627P. 9801S - 0.084627P. 9801S - 0.085149P. 9801S - 0.085149P. 9801S - 0.085149P. 9801S - 0.085139P. 9801S - 0.085139P. 9801S - 0.085139P. 9801S - 0.086414P.	BUS-0089532 BUS-0089593 BUS-0089947 BUS-0090345 BUS-0090445 BUS-0090453 BUS-0090853 BUS-0091515 BUS-0091515 BUS-0091333 BUS-0094653 BUS-0094653 BUS-0094653 BUS-0096530 BUS-0096530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530 BUS-009530
03-NOV-1997 07-NOV-1997 12-NOV-1997 21-NOV-1997 24-NOV-1997 24-NOV-1997 11-DEC-1997 11-DEC-1997 11-DEC-1997 11-DEC-1997 16-DEC-1997 16-DEC-1998 16-DEC-1998	PR 105-FEB-1299 PR 20-MAR-1998 PR 25-MAR-1998 PR 27-MAR-1998 PR 27-MAR-1998 PR 27-MAR-1998 PR 27-MAR-1998 PR 14-APR-1998 PR 14-APR-1998 PR 24-APR-1998 PR 24-APR-1998 PR 24-APR-1998 PR 24-APR-1998 PR 24-APR-1998 PR 15-MAY-1998 PR 12-MAY-1998 PR 12-MAY-1998 PR 13-MAY-1998 PR 14-MAY-1998 PR 15-MAY-1998 PR 15-MAY-1998 PR 15-MAY-1998 PR 15-MAY-1998 PR 15-MAY-1998 PR 15-MAY-1998 PR 14-JUN-1998 PR 16-JUN-1998 PR 16-JUN-1998 PR 11-JUN-1998 PR 11	17 - JUN-1998 18 - JUN-1998 18 - JUN-1998 23 - JUN-1998 24 - JUN-1998 24 - JUN-1998 25 - JUN-1998 26 - JUN-1998 26 - JUN-1998 27 - JUL-1998 28 - JUN-1998 29 - JUL-1998 20 - JUL-1998 20 - JUL-1998 20 - JUL-1998 20 - JUL-1998 21 - JUR-1998 22 - JUN-1998 23 - JUL-1998 24 - JUN-1998 25 - JUN-1998 26 - JUN-1998 26 - JUN-1998 27 - JUN-1998 28 - JUN-1998 28 - JUN-1998 28 - JUN-1998 29 - JUN-1998 20 - JUN-1998 20 - JUN-1998 21

UUS - 0.096 891P UUS - 0.056 895E UUS - 0.097141P UUS - 0.097141P UUS - 0.097951P UUS - 0.097951P UUS - 0.098750P UUS - 0.099536P UUS - 0.09959B UUS - 0.09959B UUS - 0.09959B UUS - 0.09959B UUS - 0.09959B UUS - 0.09959B	3WO-USD18824 3US-0100262P 3WO-USD19093 3WO-USD19094 3WO-USD19094 3WO-USD19070 3US-0100390P 3WO-USD1909 3WO-USD1909 3WO-USD1903 3WO-USD1909	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9US-0115733P
- AUG-1999 - AUG-1999 - AUG-1999 - AUG-1999 - AUG-1999 - AUG-1999 - AUG-1999 - SEP-1999 - SEP-1999 - SEP-1999 - SEP-1999 - SEP-1999 - SEP-1999 - SEP-1999 - SEP-1999		28-OCT-1998 29-OCT-1998 30-OCT-1998 30-OCT-1998 10-NOV-1998 10-NOV-1998 11-NOV-1998 17-NOV-1998 17-NOV-1998 17-NOV-1998 17-NOV-1998 17-NOV-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 22-DEC-1998 23-DEC-1998 23-DEC-1998 23-DEC-1998 23-DEC-1998 24-DEC-1998 25-DEC-1998 25-DEC-1998 25-DEC-1998 26-CAN-1999 27-DEC-1998 27-DE	2-JAN-19
\$\\ \text{c}		X X X X X X X X X X X X X X X X X X X	PR

```
98WO-US014552.
98US-0093339P.
98US-009561P.
98US-0095301P.
98US-0095312P.
98US-0096146P.
98US-0096146P.
98US-0096146P.
98US-0096146P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0085579P.
98US-0085697P.
98US-00864104P.
98US-00864104P.
98US-0086410P.
98US-008810P.
98US-008878P.
98US-008878P.
98US-008878P.
98US-008878P.
98US-008878P.
98US-008878P.
98US-008878P.
98US-008878P.
98US-0098878P.
98US-009987P.
98US-009987P.
98US-009987P.
             97US-0066511P
97US-0066710P
97US-0069278P
97US-006934P
97US-006934P
98US-0073320P
98US-007312P
98US-0074092P
98US-0074092P
98US-0074092P
98US-007791P
98US-007791P
                                                                                                                                                                                                                9805-0079663P-
9805-0079728P-
9805-0081229P-
9805-0081817P-
9805-0081817P-
9805-0083322P-
9805-0083322P-
9805-0084600P-
9805-0084600P-
9805-0084637P-
9805-0084637P-
9805-00863738P-
9805-0085149P-
9805-0085149P-
9805-0085149P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0096895P.
98US-0096960P.
98US-0097141P.
98US-0097218P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0096791P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-AUG-1998;
11-AUG-1998;
12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-AUG-1998;
20-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-AUG-1998
                                                                                                                                                                                                                                                                                                                                            28-APR-1998;
29-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-MAY-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUN-1998
                                                                                                                                                                                                                                                                                              15-APR-1998
15-APR-1998
                                                                                                                                                                                                                                                                                 14-APR-1998
 Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator;
glucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
cell differentiation inhibitor; cytokine release stimulator; tumour;
cervical tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                             9
                                                                                         9
                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                               Gaps
                                ;
Length 90;
                              0; Indels
                                                                                                                                                                                                                                                                                                                               Novel human secreted and transmembrane protein PRO1159.
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                     ADB22404 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9705-0049911P

9705-0056974P

9705-0059115P

9705-0059115P

9705-0059122P

9705-0059184P

9705-0059288P

9705-0059288P

9705-0059588P

9705-0059588P

9705-005958P

9705-005958P

9705-005958P

9705-005958P

9705-006281P

9705-006281P

9705-006281P

9705-006281P

9705-006281P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9705-0063561P.
9705-0063704P.
9705-0063733P.
9705-0063738P.
9705-0063738P.
9705-0064248P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0063127P.
97US-0063327P.
97US-0063329P.
97US-0063550P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0065186P.
97US-0065846P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-APR-2002; 2002US-00123905
                                                                                                                                                                                                                                                                                                 20-NOV-2003 (first entry)
                                  90; Conservative
   Query Match
Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003087344-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-0CT-1997;
24-0CT-1997;
24-0CT-1997;
24-0CT-1997;
27-0CT-1997;
28-0CT-1997;
28-0CT-1997;
29-0CT-1997;
29-0CT-1997;
29-0CT-1997;
29-0CT-1997;
29-0CT-1997;
29-0CT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-SEP-1997;
17-SEP-1997;
17-SEP-1997;
17-SEP-1997;
17-SEP-1997;
18-SEP-1997;
19-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-0CT-1997;
17-0CT-1997;
17-0CT-1997;
17-0CT-1997;
24-0CT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-SEP-1997
24-SEP-1997
                                                                                                                                                                                                                                                                  ADB22404;
                                                                                                                                                                                                                        ADB22404
                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                  A CONTRACTOR OF THE CONTRACTOR
                                                                 à
                                                                                           임
                                                                                                                             à
```

```
9
        9
                                                                                                                                                                                                     Human, PRO; secreted protein, transmembrane protein; antidiabetic; cytostatic; antirheumatic; antiarthritic; antiulcer; neuroprotective; antifilammatory; antibacterial; immunosuppressive; gene therapy; diabetes; cancer; rheumatoid arthritis; ulcers; amyotrophic lateral sclerosis; inflammatory condition; septic shock.
                     1 MIFFISLLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
        MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                    Human secreted/transmembrane protein PRO1159.
                                                 90
                                               Æ
                                                                                                                        ABO22593 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                   9705-0049787P.
9705-0062280P.
9705-0065111P.
9705-0065311P.
9705-0065311P.
9705-0065311P.
9805-0083122P.
9805-0087129P.
9805-0087129P.
9805-0088021P.
9805-0088028P.
                                                                                                                                                                                                                                                                                                                                16-NOV-2001; 2001US-00990441
                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                         US2003017982-A1.
                                                                                                                                                                                                                                                                                                                                                                       05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                               25-FEB-1998;
20-MAR-1998;
28-APR-1998;
07-MAY-1998;
28-MAY-1998;
02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1998;
                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1998;
1998;
1998;
1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-JUN-1998;
                                                                                                                                                                04-SEP-2003
                                                                                                                                                                                                                                                                                                                                                     16-JUN-1997
                                                                                                                                                                                                                                                                                                             23-JAN-2003
                                                                                                                                            AB022593;
          Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-JUN-1
04-JUN-1
04-JUN-1
04-JUN-1
04-JUN-1
05-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-JUN-1
10-JUN-1
10-JUN-1
10-JUN-1
10-JUN-1
10-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-JUN-1
03-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-JUN-1
04-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUN-
                                                                                                   RESULT 94
                                                                                                              AB022593
                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                  98US-0104080P

98US-010459P

98US-0106030P

98WO-US0222931

98WO-US0222931

98US-0106464P

98US-0106464P

98US-0106464P

98US-010847P

98US-010877P

98US-010877P

98US-010872P

98US-010872P

98US-010872P

98US-010872P

98US-010872P

98US-011329P

98US-011329P

98US-011329P

98US-011314P

98US-011314P

98US-011314P

98US-011314P

98US-011311P

98US-011351P

98US-011351P

98US-011351P

98US-011351P

98US-011351P

98US-011351P
                            98US-0098555E
98US-0098750P-
98US-009953EP-
98US-0099601P-
98US-0099803P-
98US-0099816P-
98US-0100262P-
98US-0100263P-
98US-0100263P-
                                                                                                                                                                                                                           98WO-US019437.
98US-0101474P.
98US-0101741P.
98US-0103315P.
98US-0103328P.
98WS-0103328P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0115733P.
99US-0116533P.
99US-0118210P.
                                                                                                                                                                  98WO-US019177.
98US-0100390P.
98US-0100634P.
                                                                                                                                                                                               98WO-US019330.
98US-0100710P.
98US-0100858P.
                                                                                                                                                       98WO-US019094
         98US-0097986P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-DEC-1998;
16-DEC-1998;
22-DEC-1998;
22-DEC-1998;
22-DEC-1998;
22-DEC-1998;
22-DEC-1998;
22-DEC-1998;
23-DEC-1998;
23-DEC-1998;
23-DEC-1998;
23-DEC-1998;
26-AUG-1998;
26-AUG-1998;
31-AUG-1998;
01-SEP-1998;
09-SEP-1998;
09-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
11-SEP-1998;
                                                                                                                                             14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
                                                                                                                                                                                                        17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
23-SEP-1998;
23-SEP-1998;
                                                                                                                                                                                                                                                                     07-0CT-1998
07-0CT-1998
13-0CT-1998
20-0CT-1998
22-0CT-1998
29-0CT-1998
29-0CT-1998
30-0CT-1998
30-0CT-1998
30-0CT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-NOV-1998;
20-NOV-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JAN-1999;
12-JAN-1999;
12-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-JAN-1999;
12-JAN-1999;
12-JAN-1999;
12-JAN-1999;
                                                                                                                                                                           -SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                    -NOV-1998;
-NOV-1998;
-NOV-1998;
                                                                                                                                                                                                                                                 -SEP-1998;
                                                                                                                                                                                              16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                              10-NOV-1998;
17-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JAN-1999;
```

ö

Gaps

;

100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels

90; Conservative

Query Match Best Local Similarity Matches 90; Conserva

US-0089512P US-0089513P US-0089532P US-0089533P US-0089538P US-0089599P US-0089599P US-0089653P US-0089653P US-0089648P US-0089948P US-0089948P US-0089948P	98US-0090355F- 98US-0090431P- 98US-0090431P- 98US-0090443P- 98US-0090445P- 98US-0090445P- 98US-0090445P- 98US-0090640P- 98US-00906540P- 98US-0090676P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009069P- 98US-009164P- 98US-009154P- 98US-009154P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P- 98US-009164P-	805-00921818 805-0093131918 805-00945118 805-00952821 805-00952821 805-00953181 805-00953181 805-00953181 805-00953181 805-00953181 805-00961251 805-00961251 805-00961251 805-00961251 805-00961251 805-00961251 805-00961251 805-00961251 805-00967251 805-00967251 805-00967251 805-0096731
	23-70W-1998; 24-70W-1998; 24-70W-1998; 24-70W-1998; 24-70W-1998; 24-70W-1998; 24-70W-1998; 24-70W-1998; 25-70W-1998; 25-70	9-0UL-1998; 0-UL-1998; 0-UL-1998; 4-AUC-1998; 4-AUC-1998; 4-AUC-1998; 4-AUC-1998; 4-AUC-1998; 6-AUC-1998; 0-AUC-1998; 0-AUC-1998; 0-AUC-1998; 0-AUC-1998; 0-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998; 7-AUC-1998;
* * * * * * * * * * * * * * * * * * *	*	¥ # # # # # # # # # # # # # # # # # # #

US-009689 US-009689 US-009695 US-009695 US-009695 US-009702 US-009714 US-009795 US-009795 US-009795		9WO-USQ1831 9WO-USQ2833 9WO-USQ3863 9WO-USQ30031 9WO-USQ0033 9WO-USQ00434 9WO-USQ00434 9WO-USQ00434 9WO-USQ00584 9WO-USQ00584 9WO-USQ00584 9WO-USQ00583 9WO-USQ00533 9WO-USQ00533 9WO-USQ01337C 9WO-USQ13337C
-AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998	26-AUG-1998 26-AUG-1998 26-AUG-1998 26-AUG-1998 31-AUG-1998 31-AUG-1998 31-AUG-1998 31-AUG-1998 31-AUG-1999 31	
2	\$\\ \text{84} \t	* \$

0;

0; Gaps

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60

ŏ

Query Match
100.0%; Score 462; DB 7; Length 90;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0; Indels

```
98US-0089538P-98US-0089538P-98US-0089538P-98US-0089538P-98US-0089538P-98US-0089538P-98US-008953P-98US-0089600P-98US-0089947P-98US-0089947P-98US-00905349P-98US-0090542P-98US-0090542P-98US-0090542P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905445P-98US-00905442P-98US-00905442P-98US-00905442P-98US-00905442P-98US-0095442P-98US-0095412P-98US-0095412P-98US-0095414P-98US-0095414P-98US-0095414P-98US-0095414P-98US-0095414P-98US-0095414P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095414P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-98US-0095413P-99US-0095413P-99US-0095413P-99US-0095413P-99US-0095413P-99US-0095413P-99US-0095413P-99US-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0096894P.
98US-0096895P.
98US-0096897P.
                                                                                                                            19-70N-1998;
22-70N-1998;
22-70N-1998;
23-70N-1998;
23-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
24-70N-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-AUG-1998;
12-AUG-1998;
13-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                            24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - JUL-1998;
- JUL-1998;
- JUL-1998;
- AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                       25-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                       24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                 5-JUN-1998
                                                                                                                    19-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                    6-JUN-1998
                                                                                                                                                                                                                                                                                                                                             5-JUN-1
  human, tissue typing, cardiac insufficiency disorder; angiogenesis; wound healing; tumour; immune response; retinal disorder; retinal injury; sight lose; age-related macular degeneration; Mub; kidney disorder; mesangial cell function; Berger disease; nephropathy; dermatitis; herpetiform; Crohn's disease; sports injury; arthritis.
  1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                          Human secreted/transmembrane PRO polypeptide #118.
                        90
                                         GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                           ADA06666 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                             9705-0049787P.
9705-0062250P.
9705-0065111P.
9705-0065111P.
9705-0065111P.
9705-0065111P.
9805-00769710P.
9805-0087650P.
9805-0087650P.
9805-0087650P.
9805-0087650P.
9805-0088022P.
9805-0088022P.
9805-0088023P.
9805-0088023P.
9805-0088023P.
9805-0088023P.
9805-0088028P.
9805-0088028P.
9805-0088028P.
9805-0088028P.
9805-0088028P.
9805-0088028P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
                                                                                                                                                                                                                                                                                                                                                        16-NOV-2001; 2001US-00991157
                                                                                                                                                      (revised)
(first entry)
                                                                                                                                                                                                                                                                                                            US2003049638-A1.
                                                                                                                                                                                                                                                                                                                                                                                         17-OCT-1997)
15-NOV-1997
13-NOV-1997
13-NOV-1997
24-FEB-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-JUN-1998
02-JUN-1998
02-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-UUL-11998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -JUN-1998
                                                                                                                                                                                                                                                                                                                                 13-MAR-2003
                                                                                                                                                      29-JAN-2004
06-NOV-2003
                                                                                                                                 ADA06666;
                                               19
                                                                                    95
                                                                                    RESULT 95
ADA06666
                                                                                                                                   ð
```

```
61
                                            RESULT 96
                                                          ADA39359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                            15. SEP-1999; 99WG-USG121547.

08-OCT-1999; 99WG-USG28313.

01-DEC-1999; 99WG-USG28313.

01-DEC-1999; 99WG-USG28313.

01-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG28634.

26-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG28634.

16-DEC-1999; 99WG-USG08219.

24-DEC-1999; 99WG-USG08219.

25-DEC-1999; 99WG-USG0834.

16-DEC-1999; 99WG-USG13705.

26-MAR-2000; 2000WG-USG13705.

26-MAY-2000; 2000WG-USG13705.

26-UNAY-2000; 2000WG-USG13705.

26-UNAY-2000; 2000WG-USG13705.

26-UNAY-2000; 2000WG-USG13705.

26-UNAY-2000; 2000WG-USG13705.

26-UNAY-2000; 2000WG-USG13705.
                                                                                                                                                                                                                                                                                                                                                          99US-0143048P.
99US-0144758P.
99US-014628BP.
99US-0146222P.
99US-0149396P.
                                  98US-0096960P.
98US-0097022P.
98US-0097218P.
98US-0097218P.
98US-0097952P.
98US-0097954P.
98US-0097954P.
98US-0097971P.
98US-0097971P.
98US-0097978P.
98US-009798P.
                                                                                                                                                                                                                           98WO-US019330.
98US-0100858P.
98WO-US019437.
98US-0096949P.
98US-0096950P.
98US-0096959P.
                                                                                                                                                                                                                                                                                                             99WO-US00502B.
99US-0123957P.
                                                                                                                                                                                                                                                                                                                                   99WO-US012252.
99US-0141037P.
                                                                                                                                                                                                                                                                           98WO-US025108
                                                                                                                                                                                                                                                                                     98US-0113296P.
                                                                                                                                                                                                                                                              98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JUN-2000;
28-JUL-2000;
11-AUG-2000;
                                  18-AUG-1998;
18-AUG-1998;
20-AUG-1998;
20-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
21-AUG-1998;
                                                                                                                                                                                                                                       17-SEP-1998;
17-SEP-1998;
07-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                       17-AUG-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                   05-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                                                                                                           01-DEC-1998;
22-DEC-1998;
                                                                                                                                                                                                                            16-SEP-1998
```

60

8 8 8

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

```
PRO; secreted protein; transmembrane protein; hyperrophy of neonatal heart; angiogenesis; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; T-lymphocyte proliferation; retinal neuron; pancreatic beta-cell precursor differentiation; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer; rod photoreceptor cell.
                                                                                                          Human secreted/transmembrane protein PRO1159.
         90
ADA39359 standard; protein; 90
                                                                                                                                                                                                                                                                                      9705-0062250P.
9705-0062250P.
9705-0065311P.
9705-0065311P.
9705-0065311P.
9705-0065311P.
9805-0083122P.
9805-008760P.
9805-008760P.
9805-008760P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008802P.
9805-008810P.
9805-008811P.
9805-008811P.
9805-008811P.
9805-008811P.
9805-008812P.
9805-008812P.
9805-008812P.
9805-008812P.
9805-008818P.
                                                                                                                                                                                                                                                               2001US-00997628
                                                                                       (first entry)
                                                                                                                                                                                                                           US2003059782-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-JUN-1998;
16-JUN-1998;
17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                     28-MAY-1998;
02-JUN-1998;
02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                         04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                              15-NOV-2001;
                                                                                                                                                                                                                                                                                                                                   25-FEB-1998;
20-MAR-1998;
28-APR-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-1998;
                                                                                       20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-JUN-1998
                                                                                                                                                                                                                                            27-MAR-2003
                                                                      ADA39359;
```

0089538P 0089598P 0089509P 0089600P 0089861P 0089980P 0089948P 0089948P 0089948P 0089948P 0089948P 0089948P 0089948P	S-0090431P. S-0090444P. S-0090445P. S-0090445P. S-0090545P. S-0090540P. S-0090540P. S-009054P. S-009054P. S-0090694P. S-009064P. S-009064P	00052825 0005318216 0005318216 00053255 00053255 00053255 00053255 00051256 00051256 00051256 0005126 0005726
980 1998; 980	1998; 980 1998; 980	1998; 986,119986; 986,11998; 986,11998; 986,119986; 986,11998; 986,119986; 986,11998; 986,11998; 986,11998; 986,11998; 986,11998; 986,11998; 98
71111111111111111111111111111111111111	PR 24-004 PR 24-004 PR 24-007 PR 24-007 PR 24-007 PR 24-007 PR 24-007 PR 24-007 PR 24-007 PR 25-007 PR 25-007 PR 25-007 PR 25-007 PR 25-007 PR 25-007 PR 26-007 PR 26-007	44444444444444444444444444444444444444

	0;	09
	Gaps	OPTOSSLEDSVTPTKAVKTT
	; o	SVTPT SVTPT
	th 90 els	SSLED SSLED
	Length Indel	SOPTO SOPTO
	B 7; e-49; 0;	NKENH NKENH
	2; DB . 9.8e. ches	YFLSR YFLSR
	a 46 No	TLENG LENG
	Score Pred 0, Mis	NSGSN NSGSN
98US-0096950P. 98US-0096950P. 98US-0097141P. 98US-0097141P. 98US-0097141P. 98US-0097141P. 98US-0097954P. 98US-0097954P. 98US-0097954P. 98US-0097974P. 98US-0097974P. 98US-0097974P. 98US-0097974P. 98US-0097974P. 98US-0097974P. 98US-0097974P. 98US-0097974P. 98US-0100858P. 98US-0100858P. 98US-0100858P. 98US-0100858P. 98US-0100858P. 98US-0100858P. 98US-0100858P. 98US-01437P. 98US-0145698P. 99US-0145698P. 99US-0146222P. 99US-0146222P. 99US-0146232P. 99US-0146232P. 99US-0146232P. 99US-0146232P. 99US-0146232P. 99US-0146232P. 99US-0146232P. 99US-0146698P.	0.0%;	CEAIWRSNSGSNTLENGYFLSRNKENHS
	ı ı vati	LLVCE
	arity onserv	MTFFLSLLLLLV MTFFLSLLLLLV
	imil); C	MTFF MTFF
-AUG-1998 -AUG-1999 -AUG-1	Match ocal s	пп
11888888888888888888888888888888888888	Query Best L	
# # # # # # # # # # # # # # # # # # #	Oğx	B &

0;

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

S qq

```
N-PSDB; ADA67094.
                                                                                                                                                                                                                                                                                                                                                                                                                                       28-FEB-2001; 2
28-FEB-2001; 2
01-MAR-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-MAR-2001; 2
22-MAR-2001; 2
05-APR-2001; 2
10-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-MAY-2001; 25-MAY-2001; 25-MAY-2001; 25-MAY-2001; 25-MAY-2001; 201-UW-2001; 205-UW-2001; 2019-UW-2001; 20-UW-2001; 20-UW-200
                                                                                                                                                                                                                                                                  30-MAY-2000; 2
02-JUN-2000; 2
28-JUL-2000; 2
11-AUG-2000; 2
23-AUG-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2000; 2
20-DEC-2000; 2
20-DEC-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-AUG-2001; 2
16-AUG-2001; 2
06-JAN-2000; 2
11-FBB-2000; 2
18-FBB-2000; 2
22-FBB-2000; 2
24-FBB-2000; 2
24-FBB-2000; 2
24-FBB-2000; 2
01-MAR-2000; 2
                                                                                                                                                                                                                                                                                                                                             24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUN-2001;
22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-MAR-2001;
                                                                                                                                                                                                                                                      22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-DEC-2001;
 Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                             ADA67095 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028551.
99WO-US028564.
99WO-US028565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US031274.
2000WO-US000219.
2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US012456.
98WO-US014552.
98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US020594.
99WO-US020944.
99WO-US021090.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US021547.
99WO-US023089.
99WO-US028214.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US024855
98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US005028
99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US008615.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US012252.
99WO-US020111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US030911
99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                          15-APR-2002; 2002US-00123108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901000SD-OM66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028301
                                                                                                                                          Human PRO polypeptide #237
                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                            US2003068793-A1.
                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-MAR-1999;
10-MAR-1999;
20-APR-1999;
14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-NOV-1999;
01-DEC-1999;
01-DEC-1999;
                                                                                                           20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                           10-APR-2003
                                                                              ADA67095;
                 RESULT 97
                                  ADA67095
```

```
Novel secreted and transmembrane PRO polypeptides useful for stimulating release of tumor necrosis factor-alpha from human blood and detecting the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to isolated human PRO polypeptides (secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 474; 660pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               presence of a tumor in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-0079649B.
2001WO-US006520
2001WS-00806566
2001US-00802706
2001US-00808689
2001US-00828368
2001US-0082836
2001US-0085420B.
2001US-0085420B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US017800.
2001US-00874503.
2001US-00882636.
2001WO-US019692.
2001US-0088742.
2000WO-US000376.
2000WO-US003565.
2000WO-US004342.
2000WO-US004414.
2000WO-US004914.
2000WO-US005004.
2000WO-US005601.
2000WO-US005641.
2000WO-US005841.
2000WO-US005841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00924419.
2001US-00927796.
2001US-00931836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-JUN-2001; 2001WO-US020116.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00908827;
                                                                                                                                                                                                                                                                                                                           2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00866028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US017092.
2001US-00872035.
                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00866034
                                                                                                                                                                                                                                                              2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-695925/66.
```

Gao W;

us-09-989-293a-377.junl.rag

transmembrane polypeptides) and the polymuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO colypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymuclectides are useful in molecular biology, including uses as antisense RNA and DNA and in gene therapy. The polymuclectides may also be used in preparing PRO polypeptides by the polymuclectides may also be used in the development and screening of therapeutically useful reagents. The PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are cagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of the proliferation of or gene expression in perioryte cells, for stimulating colliferation of or gene expression in perioryte cells, for stimulating colliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating contarting bone and/or cartilage disorders such as sports injuries and architic architic proportions. arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html. Sequence 90 AA;

1 MIFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Gaps Length 90; 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; 0; Mismatches 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 90; Conservative Query Match Best Local Similarity Matches g

ö

ADB22956 standard; protein; 90 AA. ADB22956 RESULT

ADB22956;

(first entry) 20-NOV-2003 Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

0;

0; Gaps

ô

100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; 0; Mismatches

Query Match Best Local Similarity 100.0 Matches 90; Conservative

à 셤 Š

JSPTO at segdata.uspto.gov/sequence.html.

Sequence 90 AA;

Length 90; Indels 9

1 MIFFLSLLLLLVCEAIWRSNSGSNILENGYFLSRNKENHSOPTOSSLEDSVIPIKAVKIT 60

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

US2003077711-A1.

```
cuse used in preparing transgenic animals or knock-out animals which are generating either transgenic animals or knock-out animals which are useful in the development animals or knock-out animals which are useful in the development and screening of therapeutically useful condition transponsive to the polypeptides or antibodies, such as tumours, for simulating and inhibiting proliferation of antibodies, such as tumours, for simulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for stimulating differentiation of adipocyte cells, for stimulating or stimulating differentiation of animocyte cells, for stimulating conditionation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating cells, for inducing endothelial cell tube formation and for treating cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders but as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating various mammalian haemoglobing suspentiated disorders such as various them and conditions which may benefit from enhanced local immune system cell infiltration. This sequence tepresents a human PRO polypeptide of the invention. Note: The records of the conditions of the con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polypucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the polification or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrena), lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New secreted and transmembrane PRO polypeptides and nucleic acids, useful in gene therapy, as diagnostic markers for the presence of a disease condition, or as therapeutic targets for treating tumors, diabetes, obesity or arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                               Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                            ssini M, Deforge L, Desnoyers L, Filvaroff E, G?
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 12; Fig 474; 637pp; English.
                                                                                                                                           99WO-US020111.
99US~00403297.
99WO-US028313.
                                                                                                                                                                                                                                  18-FEB-2000; 2000WO-US004342.
01-DEC-2000; 2000WO-US032678.
                                                       22-APR-2002; 2002US-00127829
                                                                                                               98US-0105169P
                                                                                                                                                                                                                                                                                                19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                            Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Stewart TA,
                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-755066/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ADB22955
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen ME,
                                                                                                                                              01-SEP-1999;
18-OCT-1999;
                                                                                                                                                                                                         30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Smith V,
```

g

```
GKGIVKGKNLDSRGLILGAEAWGRGVKKNT
                                                                                                  ADB23729 standard; protein; 90 AA
                                                                                                                                        ADB23729;
                                                               RESULT 99
```

Human PRO polypeptide SEQ ID NO 474

20-NOV-2003 (first entry)

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; sinter; adricovascular endothelial cell; glucose; FFA; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage dect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003077712-A1.

22-APR-2002; 2002US-00127835. 24-APR-2003.

01-SEP-1999; 99WO-US020111. 18-0CT-1999; 99WS-00402397. 18-EB-2000; 2000WO-US034342. 01-DEC-2000; 2000WO-US032678. 98US-0104987P. 20-OCT-1998;

(GETH) GENENTECH INC.

19-DEC-2001; 2001US-00028072

Gao W; Sherwood S; WI, Zhang Z; ssini M, Deforge L, Desnoyers L, Filvaroff E, Goddard A, Godowski PJ, Gurney AL, Sherwood S nrt TA, Tumas D, Watanabe CK, Wood WI, Zhang Beresini M, Stewart TA, Baker KP, Bere Gerritsen ME, Smith V,

2003-755067/71. N-PSDB; ADB23728 New isolated, secreted and transmembrane PRO nucleic acid, useful for the diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver tumors.

Claim 12; Fig 474; 637pp; English.

transmembrane polypeptides) and the polymucleotides encoding them. The transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also cartisense that transgenic animals or knock-out animals which are useful in the development animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides by recombinant techniques and in geneful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of

Gao W;

Filvaroff E, Gad.
L, Sherwood S;

Beini M, Deforge L, Desnoyers L, Filvar Goddard A, Godowski PJ, Gurney AL, She art TA, Tumas D, Watanabe CK, Wood WI,

Baker KP, Beresini M, Gerritsen ME, Goddard

(GETH) GENENTECH INC.

Stewart TA,

Smith V,

WPI; 2003-786915/74. N-PSDB; ADA92450.

glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating proliferation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating cartialed bone and/or cartilage disorders such as sports injuries and carthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, compared are also useful for treating various mammalian haemoglobing associated disorders such as various thaiassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html. 0 09 1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MIPFLSLILLLLVCEAIWRSNSGSNILENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT ; 0 100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; Indels Novel human secreted and transmembrane protein PRO1159. ö Mismatches 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT ADA92451 standard; protein; 90 AA. 0; (first entry) Similarity 100. Sequence 90 AA; 20-NOV-2003 ADA92451; Query Match Local RESULT 100 Matches ADA92451 g ð

Human; secreted and transmembrane protein; PRO; Tumour necrosis factor alpha release; TWF-alpha release; TWF-alpha release; TWF-alpha release; TUM-alpha release; TUM-alpha release; TUM-alpha release; TUM-alpha release; TUM-alpha release stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; cell differential tumour; presst tumour; prostate tumour; rectal tumour; cervical tumour; chromosome mapping; gene mapping; gene mapping; chromosome identification; chromosome marker. 15-MAY-1998; 98US-0085697P. 08-MAR-1999; 99WO-US005028. 25-AUG-1999; 99US-00380138. 01-DEC-2000; 2000WO-US03578. 19-DEC-2001; 2001US-00028072. 16-MAY-2002; 2002US-00147512, US2003082712-A1. Homo sapiens. 01-MAY-2003.

probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino polypeptide.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the criasse of TNN-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for climulating the proliferation of differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of Inner ear utricular supporting cells, constimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding increaction. A polymucleotide (II) encoding (I) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the component and chromosome through the propagation of the preparation of the propagation, in turn are useful in the development and chromosome interpretation, and in turn are useful in the development and chromosome interpretation, and in the development and chromosome interpretation, and in the development and control or propagation, and in the development and chromosome interpretation, an artiful in a distinct in a dist New PRO nucleic acid, useful for preparing a composition for treating Claim 12; Fig 474; 637pp; English. e.g., tumor or for tissue typing

Sequence 90 AA;

0; 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 Gaps ·. Length 90; 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; 90; Conservative Best Local Similarity Matches 90; Conserva Query Match

> g ઠે

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

ADB15514 standard; protein; 90 AA. RESULT 101 ADB15514

(first entry) 20-NOV-2003

ADB15514;

Human PRO polypeptide #237.

tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; skeletal miscrovascular modothelial cell; glucose; FPA; inner ear utricular supporting cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sporte; sporte; injury; proteoglycan; articular cartilage disorder; sporte injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; Human; PRO; secreted polypeptide; transmembrane polypeptide; immune system cell infiltration.

ö

0; Gaps

9

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

Query Match Best Local Similarity 100.0 Matches 90; Conservative

ð d ò

Homo sapiens

```
polymoraboringes are useful in molecular inclosed, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also cantisense RNA and DNA and in gene therapy. The polymucleotides may also generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful cathodies, such as tumours, for stimulating and inhibiting proliferation of athopism or adipocyte cells, for stimulating proliferation of angere cells, for stimulating confideration of angeocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating cells, for inducing endothelial cell tube formation and for treating cells, for inducing endothelial cell tube formation and for treating cells, for inducing endothelial cell tube formation and for treating cells, for arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, arsociated disporders such as various hemmenlain haemoglobin-compassion and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The recompassion and condition in each and recombast and conditions which reson as sequence that and the properties the first and a sequence that a structure chall and the properties of the professor of province that is also available in electronic format from recombast under the first conditions and conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         transmembrane polypeptides) and the polynuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for ocline the presence of tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO nucleic acid, useful for producing a recombiannt PRO polypeptide for manufacturing a medicament for diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to isolated human PRO polypeptides (secreted and
                                                                                                                                                                                                                                                                                                                                                                                       Deforge L, Desnoyers L, Filvaroff E, G. A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USPTO at segdata.uspto.gov/seguence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 12; Fig 474; 637pp; English.
                                                                                                                                        99WO-US012252.
99WO-US012252.
99US-00380137.
2000WO-US008439.
                                                                                            22-APR-2002; 2002US-00127824.
                                                                                                                                                                                                                                                                                     19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                   2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                          Beresini M,
ME, Goddard
                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-786943/74.
N-PSDB; ADB15513.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 90 AA;
                                                                                                                                        17-AUG-1998;
02-JUN-1999;
25-AUG-1999;
                                                                                                                                                                                                                30-MAR-2000;
                                                                                                                                                                                                                                                                      01-DEC-2000;
                                                08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                      Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                               Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New l
```

```
Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TWF-alpha release;
Jucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator;
tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; inver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                 Novel human secreted and transmembrane protein PRO1159.
           90
61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                           Ą
                                                          ADB38766 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US030999.
99WO-US030720.
99WO-US031243.
99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US005028.
99WO-US005190.
99WO-US008615.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028564,
99WO-US028565,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US021090.
99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028313
99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030911
                                                                                                                                                                                                                                                                                                                                       98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US022991.
98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028301
                                                                                                                                                                                                                                                                                      30-MAY-2002; 2002US-00158782
                                                                                                                                                                                                                                                                                                                                                           9BWO-US019093
                                                                                                                                                                                                                                                                                                                                                                    98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US020111
                                                                                                 04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                 US2003082766-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                      28-AUG-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                         07-0CT-1998
29-0CT-1998
20-0CT-1998
20-NOV-1998
01-DBC-1999
05-JAN-1999
08-MAR-1999
10-MAR-1999
11-MAY-1999
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
15-SEP-1999;
05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-NOV-1999
                                                                                                                                                                                                                                                                     01-MAY-2003
                                                                                ADB38766;
                                          RESULT 102
                                                                                        a
```

```
2001WO-US006520.
2001WO-US006666.
2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927796.
19-DBC-2001; 2001US-00927796.
                               2000WO-US004342.
2000WO-US004414.
2000WO-US004914.
2000WO-US005004.
                                                                                                                                                                                                                                                                                              22-MAR-2001; 2001US-00816744,
05-ARR-2001; 2001US-00828366.
10-MAY-2001; 2001US-00854208.
10-MAY-2001; 2001US-00854280.
18-MAY-2001; 2001US-00860216.
                                                                                                                                                                                                                                                                                                                                          25-MAY-2001; 2001US-00866028.
25-MAY-2001; 2001US-00866034.
25-MAY-2001; 2001WO-US017092.
                                                                                                                              30-MAR-2000; 2000WO-US008439.
17-MAY-2000; 2000WO-US013705.
22-MAY-2000; 2000WO-US014042.
30-WAY-2000; 2000WO-US014941.
                                                                                                                                                                                                                          2000WO-US032678.
2000US-00747259.
                                                                                                                                                                                                                                            2000WO-US034956.
2001US-00796498.
                                                                                                                                                                                                                                                                                                                                                                           2001WO-US017800
2001US-00874503
                                                                                                                                                                                                                                                                                                                                                                                           2001US-00882636
2001US-00886342
2001WO-US019692
                                                                                                                                                                 2000WO-US015264.
2000WO-US020710.
                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00887879
                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JUL-2001; 2001US-00908827
                                                                                           2000WO-US006319.
2000WO-US006884.
                                                                                                                     2000WO-US007532
                                                                                                                                                                                 2000WO-US022031
                                                                                                                                                                                                         2000WO-US030952
                                                                                                                                                                                                                    2000WO-US030873
                                                                                    2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GETH ) GENENTECH INC.
                                                                                                                                                                                         23-AUG-2000; 24-AUG-2000; 208-NOV-2000; 2
                                                                                                                                                                                                                  10-NOV-2000;
01-DEC-2000;
20-DEC-2000;
                                                                                                    15-MAR-2000; 2
20-MAR-2000; 2
21-MAR-2000; 2
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                    01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                             14-JUN-2001;
                                                                                                                                                                         28-JUL-2000;
11-AUG-2000;
                                                                                                                                                                                                                                            20-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                                                              28-FEB-2001;
01-MAR-2001;
                                                                                                                                                                 02-JUN-2000;
```

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G MB, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Filvaroff E, Stewart TA, Baker KP, Bere Gerritsen ME, Smith V, Stewa

WPI; 2003-786921/74. N-PSDB; ADB38765.

New secreted and transmembrane PRO polypeptides and nucleic acids, useful in gene therapy, detecting the presence of tumor in a mammal, or modulating the uptake of glucose or free fatty acid by skeletal muscle cells or adipocyte cells.

Claim 12; Fig 474; 660pp; English

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the crease of TNF alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of proteoglycans from cartilage, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for stimulating proliferation of endothelial cells, for steepence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonuclectide probes cells, for stimulating genomic and cDNA nucleotide sequences or antisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polymucleotide (II) encoding (I) is useful in chromosome companies probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, cry probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. An anti-(I)-antibody is useful in diagnostic assays for PRO, errobes. All and (II) are useful for tissue typing. This is the amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, PRO, pancreatic beta-cell precursor cell, pancreatic beta-cell, insulin deficiency, diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth, cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; antidiabetic; antianaemic; cytostatic, cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MIFFLSLILLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB96385 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0049787P.
97US-0062250P.
97WO-US020069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-NOV-2001; 2001US-00997559.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JS2003054403-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB96385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADB96385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

```
9803 - 00888189

9803 - 00888119

9803 - 0089105P

9803 - 0089412P

9803 - 0089514P

9803 - 0089514P

9803 - 0089514P

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089598

9803 - 0089997P

9803 - 0089947P

9803 - 0089967P
     970S-0065311P.
980S-0066770P.
980S-0078910P.
980S-008322P.
980S-008760P.
980S-008760P.
980S-0087759P.
980S-0087759P.
980S-0087759P.
980S-0088028P.
                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0090444P.
98US-0090445P.
98US-0090472P.
98US-0090535P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US - 0090542P
98US - 0090557P
98US - 0090678P
98US - 0090690P
98US - 0090694P
98US - 0090695P
98US - 0090695P
                                                                                                                                                                                                        98US-0088810P.
98US-0088824P.
98US-0088826P.
                                                                                                                                                                                                                                                                                                                                                                                           98US-0090349P.
98US-0090355P.
98US-0090429P.
                                                                                                                                                                                           98US-0088738P.
98US-0088742P.
                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0090431P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0090863P
                    25-FEB-1998;
20-MAR-1998;
28-APR-1998;
07-MAY-1998;
28-MAY-1998;
02-JUN-1998;
                                                                                                                                                                                                                                                                   .6-JUN-1998;
                                                                                                                                                                                                                                                                                 17-JUN-1998;
                                                                                                                                                                                                                                                                                                                           8-81-NUC-8.
                                                                                                                                                                                                                                                                                                                                                               19-41-NUL-61
                                                                                                                                                                                                                                                                                                                                                                       22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                             22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                            24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                  24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                        24-JJN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                               24-JUN-1998
                                                                                                                                                                                    .0-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                         24-JUN-1998
                                                                                                                          04-JUN-19
                                                                                                                                        04-JUN-1
                                                                                                                                                              1-NUL-30
                                                                                                                                                                                                  -NUL-0
                                                                                                                                                                                                                -NUL-0.
                                                                                                                                                                                                                                              1-70N-
```

us-09-989-293a-377.junl.rag

```
98US-0091360P.
98US-0091544P.
98US-0091519P.
98US-0091628P.
98US-0091631P.
98US-0091631P.
98US-0091631P.
98US-009182P.
98US-009182P.
98US-009182P.
98US-0092528P.
98US-0095281P.
98US-0095281P.
98US-0095281P.
98US-0095281P.
98US-0095281P.
98US-0095281P.
98US-0095281P.
98US-0095281P.
98US-009528P.
98US-009528P.
98US-0095218P.
98US-009528P.
98US-009528P.
98US-009689P.
98US-00969P.
98US-009798P.
98US-009798P.
98US-009798P.
98US-009798P.
98US-009798P.
98US-009798P.
98US-009798P.
98US-009798P.
98US-009798P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US025108.
98US-0113296P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0123957P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0141037P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0143048P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0145698P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0146222P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0149396P
                                                                                                                                                                                                                                                                                                       18-AUG-1998
18-AUG-1998
19-AUG-1998
19-AUG-1998
24-AUG-1998
26-AUG-1998
26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                     16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-MAR-1999;
12-MAR-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                              17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
                                                                                                                                                                                                                                                                                                                                                                  26-AUG-1998;
26-AUG-1998;
                                                                          07-JUL-1998;
09-JUL-1998;
10-JUL-1998;
                                                                                                20-JUL-1998;
30-JUL-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                  17-AUG-1998;
18-AUG-1998;
18-AUG-1998;
                                                            -JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                       31-AUG-1998;
16-SEP-1998;
                                                                                                                                                                           10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                  86-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JAN-1999
                                                                                                                                                            04-AUG-1998
                                                                                                                                                                                                         2-AUG-1998
                                             JUL-1998;
                                                                                                                                                                                          11-AUG-1998
                                                                                                                                                                                                 11-AUG-1998
                               02-JUL-1998
                                                      JUL-1998
```

```
Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TMF-alpha release;
Glucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
cell differentiation inhibitor; cytokine release stimulator; tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 7; Length 9
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human secreted and transmembrane protein PRO1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB38214 standard; protein; 90 AA
15-SEP-1999; 99WO-US021090.
15-SEP-1999; 99WO-US021547.
08-OCT -1999; 99WO-US021547.
01-DEC-1999; 99WO-US0286313.
01-DEC-1999; 99WO-US0288313.
01-DEC-1999; 99WO-US0288313.
16-DEC-1999; 99WO-US028634.
16-DEC-1999; 99WO-US03095.
20-DEC-1999; 99WO-US03095.
11-PEB-2000; 2000WO-US000376.
11-PEB-2000; 2000WO-US00376.
11-PEB-2000; 2000WO-US00376.
11-PEB-2000; 2000WO-US004341.
24-PEB-2000; 2000WO-US004341.
24-PEB-2000; 2000WO-US006841.
10-MAR-2000; 2000WO-US006841.
11-MAR-2000; 2000WO-US006841.
11-MAR-2000; 2000WO-US0068439.
11-MAR-2000; 2000WO-US008439.
11-MAR-2000; 2000WO-US013358.
11-MAR-2000; 2000WO-US013358.
11-MAR-2000; 2000WO-US013358.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0096791P.
99WO-US012252.
99US-00380137.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-APR-2002; 2002US-00125921.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0213637P.
2000WO-US020710.
2000WO-US022031.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Query Match
Best Local Similarity 100...
Best Sona 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2003087347-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-AUG-1998;
02-JUN-1999;
25-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HANDER TO THE TOTAL TO THE TOTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

ó

09

```
988
                                                                                                                                                                                                                                                                                                                                                                                         1998
                                                                                                                                                                                                                                                                       SEP-1998
                                                                                                                                                                                                                                                                                                                                                     966
                                                                                                                                                                                                                                                                                                                                                                  998
                                                                                                                                                                                                                                                                                                                                                                                                        988
                                                                                                                                                                    01-MAY-2003
                                                                                                                                                                                                                                                                                                                                        SEP-1
                                                                                                                                                                                                                                                                                                                                                                                        20-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5-SEP-:
                                                                                                                                                                                                                                                                                                                                                                                                                   15-JAN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0-APR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2-SEP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -VON-0
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the crease of TNF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of dor gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of Inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for detecting the research of two inhibiting the binding of the research of two in mammal. The tumour is lung, colon, breast, cells, for stimulating genomic and cDNA nucleotide sequences or artisense probes. (1) is also useful st herapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polymucleotide (II) encoding (I) is useful in chromosome company and senerating of therapeutically useful reasense RNA and DNA, in the preparation of PRO puppeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and scretening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating concess. An anti-(I)-antibody is useful in diagnostic assays for PRO, error acid sequence of a novel human secreted and transmembrane PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09
                                                                                                                                                                    New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide and for manufacturing a medicament for diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                            Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                         Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB66686 standard; protein; 90 AA.
                                                                                                                                                                                                             Claim 12, Fig 474; 637pp; English.
30-MAR-2000; 2000WO-US008439.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90; Conservative
                                                    (GETH ) GENENTECH INC.
                                                                                                                                 WPI; 2003-786938/74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                             N-PSDB; ADB38213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADB66686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB66686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

```
Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TMR-alpha release;
glucose uptake modulator; PRA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytckine release stimulator; tumour;
cell differentiation inhibitor; cytckine release stimulator; tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US004914
                                                                                                                                                                                                                                                                                            2002US-00127831
                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -0M66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -0M66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -0M66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -0M66
                                                                                                                                                                                                                   JS2003082689-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                            22-APR-2002;
                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                         -SEP-1998;
-SEP-1998;
-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    666
```

```
21-JUN-2001; 2001US-00887879.
22-JUN-2001; 2001WO-US020116.
29-JUN-2001; 2001WO-US021066.
                                                                                                                                                                                                                      2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                                                               09-JUL-2001; 2001WO-US021735.
                                                                                                                           2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                   2001WO-US019692.
                                                                                                                                         2001US-00816744.
2001US-00828366.
                                                                                                                                                                      2001US-00860216.
                                                                                                                                                                            2001US-00866028.
2001US-00866034.
                                                                                                                                                                                          2001WO-US017092.
                                                                                                                                                                                                  2001US-00872035.
                                                                                                                                                                                                        2001WO-US017800.
                                                                                                                                                                                                                                                                     18-JUL-2001; 2001US-00908827
                                                                                                                                                                                                                                                                            06-AUG-2001; 2001US-00924419.
                                                                                                                                                                                                                                                                                    09-AUG-2001; 2001US-00927796
                                                                                                                                                                                                                                                                                           16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
                                                                                                              2001WO-US006520
                                                                                                                     2001WO-US006666.
                                                                                                                                                        2001US-00854208
                                                                                                                                                             2001US-00854280
                                                                                                                                                                                                               2001US-00874503
                                        2000WO-US020710
                                                                           10-NOV-2000;
01-DEC-2000;
20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
                                                                                                             28-FEB-2001;
01-MAR-2001;
09-MAR-2001;
14-MAR-2001;
22-MAR-2001;
                                                                                                                                               05-APR-2001;
10-MAY-2001;
10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                     14-JUN-2001;
19-JUN-2001;
20-JUN-2001;
                          30-MAY-2000;
02-JUN-2000;
28-JUL-2000;
                                                                                                                                                                                                        01-JUN-2001;
                                                11-AUG-2000;
                                                       23-AUG-2000;
                                                                     08-NOV-2000;
```

(GETH) GENENTECH INC.

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G. ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Gerritsen N Smith V,

WPI; 2003-786905/74. N-PSDB; ADB66685

nucleic acid, useful for preparing a composition for treating e.g. tumor or for tissue typing.

Claim 12; Fig 474; 637pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the release of TMF-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in periorse cells, for stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of for cells, for stimulating the proliferation of cells, for stimulating the proliferation of endothelial cells, for stimulating cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting cells, for cettal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDNA nucleotide sequences or

Gao W;

Beresini M, Deforge L, Desnoyers L, Filvaroff E, G. IE, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

Stewart TA,

Gerritsen ME, Smith V, Stew

Baker KP,

99WO-US012252. 99US-00380137. 2000WO-US005841. 2000WO-US008439. 2000WO-US032678.

98US-0097218P

20-AUG-1998; 02-JUN-1999;

02-MAR-2000; 2000WO-US005841. 30-MAR-2000; 2000WO-US008439 01-DEC-2000; 2000WO-US032678 19-DEC-2001; 2001US-00028072

(GETH) GENENTECH INC.

```
ö
antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polymucleotide (II) encoding (I) is useful in chromosome and gene mapping in generation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and sorreening of therapeutically useful reagents, in gene thrappy, for chromosome identification, as chromosome marker, and for generating probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g. affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; hammoglobin-associated disorder thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                             1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADB89766 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-APR-2002; 2002US-00127850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                               90; Conservative
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003082698-A1.
                                                                                                                                                                                                                                                                          Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2003.
                                                                                                                                                                                                                                            polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADB89766;
                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADB89766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

WPI; 2003-743896/70.

```
readymins. The Fro PuriperLules or alliboutes are used in giteparting a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FFA by skeletal muscle cells, for stimulating differentiation of adipocyte cells, for stimulating to proliferation of of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating cells or artilage defects such as sports injuries and arthritis and arthritis proliferation of inner earling sports-related joint problems, cranical ar cartilage defects, osteoarthritis and rheumantoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanned local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this parent is also available in electronic format from custing arthritis.
                                                                                                                                                                                              The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PNO polypeptides or antibodies are used in preparing a received in preparing a resident in the development and screening of therapeutically useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
                                                                       New PRO nucleic acids and encoded polypeptides, useful in the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB90498 standard; protein; 90 AA
                                                                                                                                                         Claim 12; Fig 474; 637pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                      N-PSDB; ADBB9765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2003
                                                                                                            of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB90498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADB90498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \#\#
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

ò

```
sports injury; proteoglycan; articular cartillage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
endothelial cell tube formation; bone disorder; cartilage disorder;
                                                                                                                                                                                                                                                                                                        99WO-US028409
                                                                                                                                                                                                                                                                                                                                                          99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US014042
                                                                             15-APR-2002; 2002US-00123235.
                                                                                                                                                    98WO-US019330
                                                                                                                                                            98WO-US019437
                                                                                                                                                                                                      901000SD-0M66
                                                                                                                                                                                                                   99WO-US005190
                                                                                                                                                                                                                           99WO-US008615
                                                                                                                                                                                                                                   99WO-US010733
                                                                                                                                                                                                                                                       99WO-US020594
                                                                                                                                                                                                                                                                     99WO-US021090
                                                                                                                                                                                                                                                                             99WO-US021547
                                                                                                                                                                                                                                                                                                                                                  99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US005841
                                                                                                                 98WO-US017888
                                                                                                                               98WO-US019093
                                                                                                                                      98WO-US019094
                                                                                                                                             98WO-US019177
                                                                                                                                                                   98WO-US021141
                                                                                                                                                                          98WO-US022991
                                                                                                                                                                                 98WO-US022992
                                                                                                                                                                                               98WO-US025108
                                                                                                                                                                                                                                                99WO-US020111
                                                                                                                                                                                                                                                               99WO-TIS020944
                                                                                                                                                                                                                                                                                                  99WO-US028313
                                                                                                                        98WO-US018824
                                                                                                                                                                                                                                                                                    0SD-0M66
                                                                                                                                                                                                                                                                                                                                            -0M66
                                                  US2003082762-A1.
                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                              24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                            666
                                                                                                                                                                          OCT-1998;
                                                                                                                                                                                                                   666
                                                                                                                                                                                                                           20-APR-1999
                                                                                                                                                                                                                                                666
                                                                                                                                                                                                                                                               666
                                                                                                                                                                                                                                                                             1999;
                                                                                                                                                                                                                                                                                    6661
                                                                                                                                                                                                                                                                                                         1999
                                                                                                                                                                                                                                                                                                                              666
                                                                                                                                                                                                                                                                                                                                    666
                                                                                                                                                                                                                                                                                                                                                  666
                                                                                                                                                                                                                                                                                                                                                                        DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                         22-FEB-2000
                                                                01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                   6-DEC-1
                                                                                                                                                                                                                                                                             5-SEP-1
                                                                                                                                                                                                                                               1-SEP-
                                                                                                                                                                                                                                                                                    35-OCT-:
                                                                                                                                                                                                                                                                                           29-NOV-
                                                                                                                                                                                                                                                                                                         .-VON-08
                                                                                                                                                                                                                                                                                                  NOV-
                                                                                                                                                                                              01-DEC-
```

```
09-MAR-2001; 2001US-00802706.
14-MAR-2001; 2001US-0080689.
22-MAR-2001; 2001US-00816744.
05-APR-2001; 2001US-008166.
10-MAY-2001; 2001US-00854208.
110-MAY-2001; 2001US-00854280.
18-MAY-2001; 2001US-00860216.
25-MAY-2001; 2001US-00860318.
25-MAY-2001; 2001US-00860318.
                                                                                                                                                                                        2001US-00874503.
2001US-00882636.
                                                                                                                                                                   2001WO-US017092.
2001US-00872035.
                                                                                                                                                                                                                                                  1; 2001US-00908827.
1; 2001US-00924419.
1; 2001US-00927796.
                                                                                                                                                                                  2001WO-US017800.
                                                                                                                                                                                                       2001US-00886342.
                                                                                                                                                                                                                                    29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
                                                                                                                                                                                                               2001WO-US019692.
                                                                                                                                                                                                                      2001US-00887879
                                                        2000WO-US032678
2000US-00747259
                                                                       2000WO-US034956.
                                                                              2001US-00796498
                                                                                      2001WO-US006520.
                                                                                            2001WO-US006666
                                                                                                                                                                                                                                                                        16-AUG-2001; 2001US-00931836
                                                                                                                                                                                                                                                                               19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                14-JUN-2001; 2
19-JUN-2001; 2
20-JUN-2001; 2
                           23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
01-DEC-2000;
                                                                                                                                                                                                                      21-JUN-2001;
22-JUN-2001;
                                                                                                                                                                                  01-NUT-2001;
                                                                                     28-FEB-2001;
01-MAR-2001;
                                                                                                                                                                                                                                                                  09-AUG-2001
```

Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, Def Gerritsen ME, Goddard A, Smith V, Stewart TA, Tuma

WPI; 2003-743899/70. N-PSDB; ADB90497

 ${\boldsymbol w}$ secreted and transmembrane PRO polypeptides and nucleic acids, useful gene therapy, and in the detection and treatment of tumor in a mammal. New

Claim 12; Fig 474; 649pp; English

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor alpha (TNF-alpha) from human blood, a method for stimulating the polymeptide, a method for a tumour in a mammal (e.g. adrenal, lung, colon, breast, prosence of a tumour in mammal (e.g. adrenal, lung, colon, breast, prosent, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for

```
0
stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in periotyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin—associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence-thml.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FRA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                    1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cervical tumour, liver tumour, chromosome mapping, gene mapping, gene therapy, chromosome identification, chromosome marker.
                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADB39599 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US012456.
98WO-US014552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US025108.
99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US005230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-00137868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100."
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003082764-A1.
                                                                                                                                                                                                                                                                  Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JUL-1998
28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-0CT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-OCT-1998
29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-1998
05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .2-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADB39599;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
     5555555555555555555888
                                                                                                                                                                                                                                                                                                                                                                        ð
```

```
2000WO-US020710.
2000WO-US022031.
2000WO-US023522.
2000WO-US023328.
                                                                   99WO-US023089.
99WO-US028214.
99WO-US028313.
                                                                                       99WO-US028409.
99WO-US028301.
99WO-US028634.
                                                                                                                                                                                                                                                                                                        2000WO-US014042.
2000WO-US014941.
2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00828366.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         001US-00872035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-008B2636
                                                                                                                                               99WO-US030999.
                                                                                                                                                                                                                                           2000WO-US005601.
2000WO-US005746.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00854280
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00860216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  001WO-US017092
                                                99WO-US020944.
99WO-US021090.
                                                                                                             99WO-US028551.
                                                                                                                            99WO-US028565
                                                                                                                                  99WO-US030095
                                                                                                                                          99WO-US030911
                                                                                                                                                                            2000WO-US000219.
                                                                                                                                                                                    2000WO-US000277
                                                                                                                                                                                                 2000WO-US003565
                                                                                                                                                                                                         2000WO-US004341.
                                                                                                                                                                                                               2000WO-US004342.
                                                                                                                                                                                                                             2000WO-US004914
                                                                                                                                                                                                                                    2000WO-US005004.
                                                                                                                                                                                                                                                                                                                                                                 2000WO-US030873
                                                            99WO-US021547
                                                                                                                                                                                                                                                                                                                                    11-AUG-2000; 2
23-AUG-2000; 2
24-AUG-2000; 2
08-NOV-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                  09-MAR-2001;
14-MAR-2001;
22-MAR-2001;
                                                                                                                                                                            05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                          02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2001;
                                      08-SEP-1999
13-SEP-1999
15-SEP-1999
15-SEP-1999
05-OCT-1999
29-NOV-1999
30-NOV-1999
01-DEC-1999
01-DEC-1999
02-DEC-1999
02-DEC-1999
02-DEC-1999
                                                                                                                                                                                                              18-FEB-2000;
                                                                                                                                                                                                                       22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                 02-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                 30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                         18-FEB-2000;
                                                                                                                                                                                                                                    24-FEB-2000;
                                                                                                                                                                                                                                                                                    21-MAR-2000;
                                                                                                                                                                                                                                                                                                         22-MAY-2000;
```

```
New secreted and transmembrane PRO polypeptide useful for detecting the presence of tumor in a mammal, or modulating the uptake of glucose or free fatty acid by skeletal muscle cells or adipocyte cells.
                                                                                                                   Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga
MB, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                  09-UUL-2001; 2001WO-US021735.
18-UUL-2001; 2001US-00908827.
06-AUG-2001; 2001US-00924419.
06-AUG-2001; 2001US-00927796.
16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
        2001US-00887879.
2001WO-US020116.
2001WO-US021066.
                                                                                                                                      Stewart TA,
                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                      WPI; 2003-786919/74.
                                                                                                                                                               N-PSDB; ADB39598
                                                                                                                            Gerritsen ME,
        21-JUN-2001; 2
22-JUN-2001; 2
29-JUN-2001; 2
                                                                                                                    Baker KP,
                                                                                                                                      Smith V,
```

Claim 12; Fig 474; 659pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the cransmembrane and transmembrane polypeptides (1). (1) is useful for stimulating the proliferation or adipocyte cells, for glucose or FRA by skeletal muscle cells adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of procession in pericyte cells, for stimulating the proliferation of procession in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for stimulating of the research of tumour in a mammal. The differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting the prosessor of tumour in a mammal. The tumour is lung, colon, breast, contisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding or preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating cromosome identification, as chromosome marker, and for generating control of PRO polypeptide, for generating transgenic animals or chromosome identification, as chromosome marker, and for generating control of PRO from recombinant cell culture or natural control in an unit of PRO from recombinant cell culture or natural cells acid sequence of a novel human secreted and transmenter or actual and transmenter and cells acid seque

Sequence 90 AA;

., 100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; Indels 90; Conservative Query Match Best Local Similarity Matches 90; Conserv

09 1 MIFFLSLLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKTT 1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

g

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT à

90

RESULT 109 ADB47222 Sequence 90 AA;

```
ADB47222 standard; protein; 90 AA.

ADB47222;

04-DEC-2003 (first entry)

Novel human secreted and transmembrane protein PRO1159.

Human; secreted and transmembrane protein; PRO;

Tumour necrosis factor alpha release; TNF-alpha release;

Tumour necrosis factor; FRA uptake modulator;

cell proliferation stimulator; cytokine release stimulator;

cell differentiation inhibitor; cytokine release stimulator;

tumour; breast tumour; prostate tumour;

cervical tumour; liver tumour; chromosome mapping; gene mapping;

gene therapy; chromosome identification; chromosome marker.
```

Homo sapiens.

US2003082687-A1 01-MAY-2003. 19-APR-2002; 2002US-00125930. 05-:TIN-2000: 2000US-0209832P.

05-JUN-2000; 2000US-0209832P. 01-DEC-2000; 2000MO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W; Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-786904/74. N-PSDB; ADB47221. New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 627pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the cransmean and the underly for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for stimulating the prosence of tumour in a mammal. The tumour is lung, colon, breast, cor stimulating genomic and cDNA nucleotide sequences or antisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proceins or molecules involved in binding in assays to identify other proceins or molecules involved in binding interaction. A polymelectide (II) encoding (I) is useful in chromosome identification, as chromosome marker, and for generating of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating tromesome identification, as chromosome marker, and for generating cells, interacting its expression in specific cells, tissues or serum, and for affinity purification of specific cells, tissues or serum, and caffinity purification of specific cells, tissues or serum, and caffinity purification of a novel human secreted and transmembrane PRO

```
ô
                                                                                                                                                                                                                                                                                                                                                                                Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA, skeletal muscle cell; adipocyte cell; glucose; FFA, inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                                                                                09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           secreted and transmembrane PRO polypeptides, useful in the diagnosis treatment of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
                                                                  09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gao W;
                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Filvaroff E, G.
L, Sherwood S;
od WI, Zhang Z;
                                 0;
Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          esini M, Deforge L, Desnoyers L, Filvard
Goddard A, Godowski PJ, Gurney AL, She:
art TA, Tumas D, Watanabe CK, Wood WI,
                                 Indels
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
                                  0
                                                                                                                                    90
                                 0; Mismatches
                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12; Fig 474; 637pp; English
                                                                                                                                                                                                                                                      ADB86829 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-OCT-1998; 98US-0104987P.
01-SEP-1999; 99WO-0S020111.
01-CCT-1999; 99US-0A03297.
18-FEB-2000; 2000WO-US004342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-APR-2002; 2002US-00127849
                                                                                                                                                                                                                                                                                                                                                         Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                        (first entry)
                                    90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-743895/70.
                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ADB86828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003082697-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2000;
19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                        04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith V,
                                                                                                                                                                                                                                                                                     ADB86829;
   Query Match
                                                                                                                                                                                                                        RESULT 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                      Matches
                                                                                                                                                                                                                                        ADB86829
                                                                                                                                                                                                                                                                       à
                                                                                                     셤
                                                                                                                                      à
                                                                                                                                                                    g
```

```
colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as atticated probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapettically useful caggents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of numan microvascular endothelial cells, for modulating the uptake of glucose or FPA by skeletal muscle cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of inner ear utricular supporting cells, for stimulating colliferation of inner ear utricular supporting cells or T-lymphocyte cells, for induning endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans for articular cartilage are useful for treating sports related joint problems, articular cartilage are useful for treating various mammalian haemoglobin-sasoniated disorders such as various the invention. Note: The sequence tepresents a human PRO polypeptide of the invention. Note: The recorders are early and a numbanced local immune system cell infiltration. This controp is each as the superior of the invention. Note: The recorders are not not not not not negated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USPTO at segdata.uspto.gov/seguence.html.
```

Sequence 90 AA;

```
ò
                                                                       1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                           1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                      0; Gaps
 Length 90;
                                  0; Indels
100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                  0; Mismatches
                                                                                                                                                   90
                                                                                                                                                                                      61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                   Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                     61
     Query Match
                                                                           ₽
                                                                                                              엄
                                                                                                                                                     ð
```

Novel human secreted and transmembrane protein PRO1159, ADB77434 standard; protein; 90 AA (first entry) 04-DEC-2003 ADB77434; RESULT 111 ADB77434

Tuncour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; FFA uptake modulator; cell proliferation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; liver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker. Human; secreted and transmembrane protein; PRO;

99US-0145698P. 99WO-US020111. 99US-00403297. 22-APR-2002; 2002US-00127848. 98US-0106934P. US2003082696-A1. Homo sapiens 03-NOV-1998; 26-JUL-1999; 01-SEP-1999; 01-MAY-2003.

Human PRO polypeptide SEQ ID NO 474.

04-DEC-2003 (first entry)

ADB34591;

ADB34591 standard; protein; 90

RESULT 112

d

ADB34591

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the crahease of TWF-alpha from human blood, for modulating the uptake of glucose or FPA by skeletal muscle cells or adipocyte cells, for glucose or FPA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, corestate, rectal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genemic and cnman. The oligonucleotide probes are useful for isolating genemic and cnman nucleotide sequence or unitaring other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome core mapping, in generation of antisense probes. An anti-(I) antibody is useful in the development and corposes. An anti-(I) antibody is useful in diagnostic assays for PRO, enconceditating its expression in specific cells, tissues or serum, and for chromosome identification, as chromosome arker, and for generating confinence of a novel human secreted and transmembrane PRO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                               PRO nucleic acid, useful for preparing a composition for treating e.g.,
                                                                                                                                                  Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                Deforge L, Desnoyers L, Filvaroff E, Ga Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                            Claim 12; Fig 474; 637pp; English.
  2000WO-US000219.
2000WO-US004342.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.08;
                                                               19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                                                       tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                Beresini M,
I ME, Goddard A
Stewart TA, T
                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                   WPI; 2003-755109/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                       N-PSDB; ADB77433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 90 AA;
                                                                                                                                                                      Gerritsen ME,
05-JAN-2000; 2
18-FEB-2000; 2
01-DEC-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :06
                                                                                                                                                  Baker KP,
                                                                                                                                                                                          Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
```

Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; Pericyte cell; endothelial cell whe formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003077717-A1.

24-APR-2003.

24-APR-2002; 2002US-00131818.

07-OCT-1998; 98US-0103328P.
10.5EP-1999; 99WO-USG020111.
18.CCT-1999; 99WS-00403397.
30-NOV-1999; 99WO-US028313.
18.FEB-2000; 2000WO-US03434.
01-DEC-2001; 2001US-00032678.

(GETH) GENENTECH INC.

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W; Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-755072/71. N-PSDB; ADB34590. New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver tumors.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymuclecides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis actoring the presence of a tumour in a mammal (e.g. adrenal, lung, broliferation or differentiation of chondrocyte cells and a method for colon, breast, prostet, rectal, kidney, cervical and liver tumours). The prolymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating cuseful in the development and screening of therapeuticlecides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful crasgents. The PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating of herapeutically useful canging in the proliferation of of adipocyte cells, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endochhelial cell tube formation and for treating cells, for cells, for inducing endochhelial cell tube formation and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proceoglycans from cartilage are useful for treating various mammalian hammoglobin-ansolous associated disorders such as various thalassaemias and conditions which associated disorders such as various paragraphy and the paragraphy and the paragraphy and

0 may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO Polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html. tumour necrosis factor-alpha. TNR-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. 1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO secreted and transmembrane PRO polypeptides and nucleic for the diagnosis, prevention and/or treatment of tumors colon, breast, prostate, rectal, cervical and/or liver Gaps Sherwood S; Zhang 0 Filvaroff E, Human; PRO; secreted polypeptide; transmembrane polypeptide; Length 90; Indels Deforge L, Desnoyers L, Filvar A, Godowski PJ, Gurney AL, She Tumas D, Watanabe CK, Wood WI, 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; 90 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT Human PRO polypeptide SEQ ID NO 474. Claim 12; Fig 474; 637pp; English. ADB35695 standard; protein; 90 AA. 09-FEB-1999; 99US-0119341P. 01-DEC-1999; 99WO-01502634. 01-DEC-2000; 2000WO-U5032678. 19-DEC-2001; 2001US-00028072. 24-APR-2002; 2002US-00131824. (first entry) 90; Conservative Beresini M, ME, Goddard (GETH) GENENTECH INC. Stewart TA, 2003-755074/71. Similarity N-PSDB; ADB35694 US2003077719-A1. Sequence 90 AA; New isolated, sacids, useful f such as lung, o Homo sapiens. Gerritsen ME, 04-DEC-2003 24-APR-2003. Baker KP, ADB35695; Smith V, Query Match Best Local S tumors. RESULT 113 8×333333 ð 임 ð

generating element randoment and screening of therapeutically useful
reagents. The PRO polypeptides or antibodies are used in preparing a
medicament for treating a condition responsive to the polypeptides or
antibodies, such as tumours, for stimulating and inhibiting proliferation
of human microvascular endothelial cells, for modulating the uptake of
slucose or FRA by skeletal muscle cells, for modulating the uptake of
stimulating differentiation of adipocyte cells, for stimulating
proliferation of or gene expression in pericyte cells, for stimulating
cells, for inducing endothelial cell tube formation and for treating
cells, for inducing endothelial cell tube formation and for treating
various bone and/or cartilage disorders such as sports injuries and
arthritis. PRO polypeptides which stimulate the release of proteoglycans
from cartilage are useful for treating sports-related joint problems,
collypeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalassaemias and conditions which
may benefit from enhanced local immune system cell infiltration. This
sequence represents a human PRO polypeptide of the invention. Note: The
sequence data for this patent is also available in electronic format from polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are USPTO at segdata.uspto.gov/sequence.html

Sequence 90 AA;

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Gaps Length 90; 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; 0; Mismatches Conservative Query Match Best Local Similarity 90; Matches d ð

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61

ð

ADB34039 standard; protein; 90 AA RESULT 114 ADB34039

ADB34039;

04-DEC-2003 (first entry)

Human PRO polypeptide SEQ ID NO 474.

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; rheumatoid arthritis; haemoglobi immune system cell infiltration.

Homo sapiens

JS2003077716-A1.

24-APR-2003.

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the invention alba (Trem human blood, a method for stimulating the propertied, a method for stimulating the propertied an enthod for stimulating the proliferation or differentiation of chondrocyte cells and a method for proliferation probes, in chromosome and gene mapping, in generating and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are generating either transgenic animals or knock-out animals and in generating either transgenic animals or knock-out animals and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or PRA by skeletal muscle cells, for stimulating differentiation of adipocyte cells, for stimulating and individual and condition responsive cells, for stimulating and individual and conditions which exitouls been and/or cartilage disorders such as sports injuriates and various been and/or cartilage disorders such as sports injuriates and avarious been and/or cartilage disorders such as sports injuriates and cartilage are useful for treating sports-related joint problems, cartilage are useful for treating various mammalian haemoglobined may benefit from enhanced local immune system cells infilturation. Note: The sequence expresents a human Ro polypeptide of the invention. Note: The sequence expresents a buman Ro polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acids, usefi
chromosome markers,
                                                                                                                                                                                                                                                                                    Gao W;
                                                                                                                                                                                                                                                                               Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                               New secreted and transmembrane PRO polypeptides and in gene therapy, in chromosome and gene mapping, as in tissue typing, and in identifying chromosomes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JSPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12; Fig 474; 637pp; English
                                                                                                                 18-FEB-2000; 2000WO-US004342.
10-NOV-2000; 2000WO-US036873.
10-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                      99US-00403297,
24-APR-2002; 2002US-00131813
                                                                       99WO-US020111
                                                                                                                                                                                                                                     (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-755071/71.
N-PSDB; ADB34038.
                                                                                                                                                                                                                                                                                                     Gerritsen ME,
Smith V, Stew
                                                                                        18-OCT-1999;
                                                                     01-SEP-1999;
                                                                                                                                                                                                                                                                                    Baker KP,
```

1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Gaps Indels Score 462; DB 7; Pred. No. 9.8e-49; 0; Mismatches 100.0%; Ouery Match Best Local Similarity 100.0 Matches 90; Conservative

Sequence 90 AA;

9

1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKTT

d ò g

à

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

```
Claim 12; Fig 474; 638pp; English.
\\ \text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ticl{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text
                                                                                                                                                                   Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; perioyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder, cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoathritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                             Human PRO polypeptide SEQ ID NO 474
                                                 Ä
                                                ADB35143 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US012456.
98WO-US014552.
98WO-US01888.
98WO-US019093.
98WO-US019094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US031243.
99WO-US031274.
2000WO-US000219.
2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US020594.
99WO-US020944.
99WO-US021090.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US019437
98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US025108
99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US008615
99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US023089
99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028301
99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028565
99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-APR-2002; 2002US-00131823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028564
                                                                                                             04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                   US2003077718-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-7UL-1998;
28-AUG-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-0CT-1998;
29-0CT-1998;
29-0CT-1998;
20-NOV-1998;
01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
20-APR-1999;
14-MAY-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-DEC-1999
02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-DEC-1999
20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-DEC-1999
22-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                  24-APR-2003
                                                                               ADB35143;
                  RESULT 115
                                  ADB35143
```

```
New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Filvaroff E, Ga
L, Sherwood S;
od WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Deforge L, Desnoyers L, Filvard
A, Godowski PJ, Gurney AL, She:
Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP, Beresini M, Deforge I
Gerritsen ME, Goddard A, Godows
Smith V, Stewart TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                           24-AUG-2000; 2000WO-US023328.
08-NOV-2000; 2000WO-US033328.
10-NOV-2000; 2000WO-US0330873.
20-DEC-2000; 2000WO-US033678.
20-DEC-2000; 2000WO-US0334956.
20-DEC-2000; 2000WG-US034656.
28-FEB-2001; 2001WG-US005666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00874503.
2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001; 2001US-00872035.
01-JUN-2001; 2001WO-US017800.
05-JUN-2001; 2001US-00874503.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-APR-2001; 2001US-00828366.
10-MAY-2001; 2001US-00854208.
10-MAY-2001; 2001US-00854280.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-MAY-2001; 2001US-00860216.
25-MAY-2001; 2001US-00866028.
25-MAY-2001; 2001US-00866034.
25-MAY-2001; 2001WO-US017092.
                                                                                                                       2000WO-US005601.
2000WO-US005746.
2000WO-US005841.
                                                                                                                                                                                 2000WO-US006319.
2000WO-US006884.
2000WO-US007377.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAR-2001; 2001US-00802706
14-MAR-2001; 2001US-00808689
22-MAR-2001; 2001US-00816744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US020116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-JUN-2001; 2001WO-US021066
09-JUL-2001; 2001WO-US021735
18-JUL-2001; 2001US-00908827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                            2000WO-US007532.
2000WO-US008439.
                                                                                                                                                                                                                                                                                     2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                      2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001WO-US019692
2001US-00887879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001; 2001US-00931836
                                                                                                                                                                                                                                                                                                                                                 2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-755073/71.
N-PSDB; ADB35142.
111-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
02-MAR-2000;
02-MAR-2000;
11-MAR-2000;
11-MAR-2000;
12-MAR-2000;
11-MAR-2000;
11-MAR-2000;
11-MAR-2000;
11-MAR-2000;
                                                                                                                                                                                                                                                                  30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
                                                                                                                                                                                                                                                                                                                         30-MAY-2000;
02-JUN-2000;
02-JUN-2000;
111-AUG-2000;
23-AUG-2000;
06-NOV-2000;
10-NOV-2000;
10-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-JUN-2001;
21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumors.
```

Gao W;

24-APR-2003

The invention also relates to isolated final and the polymuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO colorpatities (TWF-alpha) from human blood, a method for stimulating the factor-alpha (TWF-alpha) from human blood, a method for stimulating the prolatestion or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as antisenses RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are capents. The PRO polypeptides by recombinant techniques and in reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of the proliferation of adipocyte cells, for modulating the uptake of glucose or FRA by skeletal muscle cells for modulating the uptake of stimulating differentiation of inner ear utrilly for modulating cells, for stimulating cells, for stimulating or treating collection and for treating various bone and/or cartilage disorders such as sports injuries and arbitishes are useful for treating sports-related joint problems, arricular cartilage defects, osteoarthritis and rhemmatoid arbitisher properties such as various thalassaemias and conditions which associated disorders such as various thalassaemias and conditions which associated disorders such as various thalassaemias and conditions when sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from The invention relates to isolated human PRO polypeptides (secreted and USPTO at segdata.uspto.gov/sequence.html

Sequence 90 AA;

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Gaps Length 90; 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT Best Local Similarity 100. Matches 90; Conservative Query Match g

0

ADB36247 standard; protein; 90 AA. ADB36247; RESULT 116 ADB36247

Human PRO polypeptide SEQ ID NO 474. 04-DEC-2003 (first entry)

osteoarthritis; Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial call; glucose; FFA; skeletal muscle cell; adipoyte cell; periote; esl; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; atticular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT 60

ò qq ò

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

9

Homo sapiens.

US2003077720-A1

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for simulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as uptimizense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and some empaphing, in generating antisense the transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful cagents. The RNO polypeptides by recombinant techniques and in generating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of functions or adipocyte cells, for mediating differentiation of adipocyte cells, for stimulating colls or stimulating expoliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for relaminating and cells, for mediating endethelial cell tube formation and for treating cells, by arrious bone and/or cartilage disorders such as sports injuries and any profession and profession and profession and profession or profession and profession and profession and profession and profession or profession and profession and profession and profession and profession arriminating and profession and profession and profession profession and profession and profession profession and profession profession and profession profession and profession profession arriminate and profession and profession and profession and profession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                arthritis. PRO polypetides which stimulate the release of proteoglycans arthritis. PRO polypetides which stimulate the release of proteoglycans articular cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which amy benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                                             Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors such as lung, colon, breast, prostate, rectal, cervical and/or liver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                          Filvaroff E, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                          Baker KP, Beresini M, Deforge L, Desnoyers L, Filvar
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, She
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JSPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 474; 637pp; English.
                                                                                24-APR-2002; 2002US-00131830.
                                                                                                                                   09-DEC-1999; 99US-0170262P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90; Conservative
                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-755075/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ADB36246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
```

ö

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the cransmembrane) polypeptides (1). (1) is useful for stimulating the properties from human blood, for modulating the uptake of glucose of FPA by skeletal muscle calls or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of inner ear utricular supporting cells, cor stimulating the proliferation of endothelial cells, for stimulating the proliferation of endothelial cells, for stimulating the presence of tumour in a mammal. The tumour is lung, colon, breast, cells, for stimulating genomic and cDNA nucleotide sequences or antisense probes. (1) is also useful as therapeutic agent. PRO is useful in easys to identify other proteins or molecules involved in binding interaction. A polymucleotide (II) encoding (I) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or propess. (2) antibody is useful in the development and screening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating screening of checking in septimic cells, tissues or serum, and for generating screening its expression in specific cells, tissues or serum, and caffinity purification of RNA for the recombinant cell culture or natural scruces. (I) and (II) are useful for tissue typing. This is the amino
                                                                                                                                                                                                                                           Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumour; clon tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New PRO nucleic acid, useful for preparing a composition for treating e.g., tumor or for tissue typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                              Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                            Human; secreted and transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 12; Fig 474; 637pp; English.
                                         ADB46642 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-APR-2002; 2002US-00127842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-MAR-2000; 2000US-0187202P.
                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-786906/74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ADB46641.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003082692-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gerritsen ME,
Smith V, Stewe
                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-2003.
                                                                                                                                   04-DEC-2003
                                                                                         ADB46642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , .
.
.
.
RESULT 117
                     ADB46642
```

```
1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                    Human, PRO, pancreatic beta-cell precursor cell, pancreatic beta-cell, insulin deficiency, diabetes mellitus, haemoglobin-associated disorder, thalassaemia; endothelial cell growth, cancer; cystic renal dysplasia; polycystic kidney disease, renal tumour; antidiabetic; antianaemic; cytostatic, cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                          Gaps
                                                                          ·
0
acid sequence of a novel human secreted and transmembrane PRO
                                                     Length 90;
                                                                         0; Indels
                                                     100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                         0; Mismatches
                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                 ADC57857 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9805-0075945P

9805-008430P

9805-0084302P

9805-008710P

9805-008710P

9805-0087609P

9805-008769P

9805-008769P

9805-0088028P

9805-0088028P

9805-0088028P

9805-0088028P

9805-0088028P

9805-0088028P

9805-0088028P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0088734P.
98US-0088738P.
98US-0088742P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-US020069.
97US-0065186P.
97US-0065311P.
97US-0066770P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0088212P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0088655P
                                                                                                                                                                                                                                                                                  Human PRO polypeptide #118.
                                                                                                                                                                                                                                                            (first entry)
                                                                         90; Conservative
                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                          US2003027754-A1.
                               Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                     14-NOV-2001;
                                                                                                                                                                                                                                                            18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                06-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-NOV-1997
            polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUN-1998
                                                                                                                                                                                                                                        ADC57857;
                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-MAY-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUN-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -NO-01
                                                                                                                                                                                             RESULT 118
                                                                         Matches
                                                                                                                                                                                                        ADC57857
                                                                                                                                                                                                                              82333
                                                                                                                   g
                                                                                                                                          à
                                                                                                                                                             g
```

Gao W;

10-JUN-1998;

		் உட்டை க்
3US-0088810 3US-0088826 3US-0088826 3US-0088858 3US-0088876 3US-0089405 3US-0089405 3US-0089518 3US-0089518 3US-0089538 3US-0089538 3US-0089598 3US-0089598 3US-0089598 3US-0089598	BUS-0089907 BUS-0089908 BUS-0089948 BUS-0089952 BUS-0090246 BUS-0090349 BUS-0090349 BUS-0090349 BUS-0090429 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090458 BUS-0090648	9805 - 009069698 98075 - 00908621 98075 - 00908621 98075 - 00913601 98075 - 00915139 98075 - 00916281 98075 - 00916281 98075 - 00916781 98075 - 00921822 98075 - 00921822 98075 - 00921822 98075 - 00921822 98075 - 00922852 98075 - 00952852 98075 - 00952852 98075 - 00952852 98075 - 00952852 98075 - 00952852 98075 - 00953211 98075 - 00953211 98075 - 00953211 98075 - 00953211 98075 - 00953211 98075 - 00953211 98075 - 00953211
100 1998 100	8 - CUN - 1998 9 - CUN - 1998 9 - CUN - 1998 9 - CUN - 1998 9 - CUN - 1998 10 - CUN -	25-UUN-1998; 26-UUN-1998; 26-UUN-1998; 01-UUL-1998; 02-UUL-1998; 02-UUL-1998; 02-UUL-1998; 02-UUL-1998; 02-UUL-1998; 07-UUL-1998; 07-UUL-1998; 07-UUL-1998; 07-UUL-1998; 04-AUG-1998;
######################################	. K K K K K K K K K K K K K K K K K K K	***************************************

UUS-0096756P UUS-0096768P UUS-0096773P UUS-0096773P UUS-0096891P UUS-0096897P UUS-0096897P UUS-0096897P UUS-0096897P UUS-0096897P UUS-0096897P UUS-0096950P UUS-0096950P	10YS-0097218P 10YS-0097661P 10YS-0097951P 10YS-0097951P 10YS-0097971P 10YS-0097971P 10YS-0097971P 10YS-0097978P 10YS-0097979 10YS-0096014P 10YS-0096014P 10YS-0096014P 10YS-0096014P 10YS-0096014P 10YS-0096014P 10YS-0096014P 10YS-0096014P 10YS-0096014P	8WO-US01945 8WO-US02114 8WO-US02110 9WO-US00010 9WO-US000120 9WO-US01225 9US-0144758 9US-0144758 9US-01446222 9US-0146222 9US-0146222 9US-0146222 9US-016663 9WO-US02109 9WO-US02109 9WO-US021830	USO30095 USO30091 USO3000316 USO3003365 USO304341 USO304414 USO306414 USO306414 USO306414 USO306414 USO306414 USO306414 USO306413
-AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998 -AUG-1998	7-AUG-1998 7-AUG-1998 7-AUG-1998 7-AUG-1998 8-AUG-1998 8-AUG-1998 8-AUG-1998 8-AUG-1998 8-AUG-1998 8-AUG-1998 8-AUG-1998	7SEP 1998 1DEC-1999 2DEC-1999 2DEC-1999 2DEC-1999 2DEC-1999 3UUN-1999 3UUN-1999 3UUL-1999 3UUL	
	K K K K K K K K K K K K K K K K K K K	Z X X X X X X X X X X X X X X X X X X X	***************************************

```
98US-008885BP
98US-0088861P
98US-0089105P
98US-0089112P
98US-0089512P
98US-0089513P
98US-008959BP
98US-008950P
98US-008950P
98US-008960P
98US-008960P
98US-008961P
98US-008961P
98US-008961P
98US-008961P
98US-008961P
98US-008961P
98US-008961P
98US-008961P
98US-008961P
98US-009054P
98US-009054P
98US-009054P
98US-0090445P
98US-0090445P
98US-0090445P
98US-009045P
98US-009045P
98US-009065P
98US-009065P
98US-009065P
98US-009065P
98US-009065P
98US-009065P
98US-009065P
98US-009065P
98US-009065P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0090690P.
98US-0090695P.
98US-0090695P.
98US-0090862P.
98US-0090863P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0091544R
98US-00915478P
98US-0091519P
98US-0091626P
98US-0091638P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0092182P.
98US-0093472P.
98US-0094651P.
98US-0095282P.
98US-0095301P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
98US-0095318P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0091646P.
98US-0091673P.
98US-0091978P.
98US-0091982P.
11. - TUN - 1998;

11. - UUN - 1998;

12. - UUN - 1998;

16. - UUN - 1998;

16. - UUN - 1998;

17. - UUN - 1998;

18. - UUN - 1998;

18. - UUN - 1998;

19. - UUN - 1998;

19. - UUN - 1998;

22. - UUN - 1998;

22. - UUN - 1998;

23. - UUN - 1998;

24. - UUN - 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-JUN-1998;
25-JUN-1998;
26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-AUG-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-AUG-1998)
   ö
                                                                                       1 MTFFLSLLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                        1 MIFFLSLLILLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                    Human, PRO, pancreatic beta-cell precursor cell, pancreatic beta-cell, insulin deficiency, diabetes mellitus, haemoglobin-associated disorder, thalassaemia, endothelial cell growth, cancer; cystic renal dysplasia, polycystic kidney disease; renal tumour, antidiabetic; antianaemic; cytostatic, cardiant; vulnerary; antiinflammatory; anorectic.
                                                           Gарв
                                                           .
0
                                7; Length 90;
                                                           0; Indels
                              Query Match 100.0%; Score 462; DB 7;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0;
                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                      ADC55221 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0049787P

97WS-0062250P

97US-006511RP

97US-006511RP

97US-006511RP

98US-0078910P

98US-0078910P

98US-0081322P

98US-008160P

98US-008160P

98US-008160P

98US-008160P

98US-008160P

98US-008161P

98US-0088028P

98US-0088178P

98US-0088748P

98US-0088734P

98US-0088748P

98US-0088748P
   23-AUG-2000; 2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-NOV-2001; 2001US-00990437
                                                                                                                                                                                                                                                                                                                                          Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2003045463-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13 - NOV - 1997

24 - NOV - 1997

25 - MAR - 1998

26 - MAR - 1998

27 - MAY - 1998

28 - MAY - 1998

29 - MAY - 1998

20 - JUN - 1998

30 - JUN - 1998

40 - J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                                              18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-NOV-1997
                                                                                                                                                                                                                                                                                   ADC55221;
                                                                                                                                                  61
                                                                                                                                                                             61
                                                                                                                                                                                                                        RESULT 119
                                                                                                                                                                                                                                        ADC55221
    PR
                                                                                                                                                                                                                                                                                   ð
                                                                                                                 g
                                                                                                                                                  ò
                                                                                                                                                                            셤
```

```
Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 462;
98US-0096771P.
98US-009687P.
98US-0096891P.
98US-0096894P.
98US-0096897P.
98US-0096949P.
98US-0096949P.
98US-0096949P.
98US-0096949P.
98US-0096949P.
98US-0096949P.
98US-009795P.
98US-009795P.
98US-009795P.
                                                                                                                                                                                                                                                                                                    99US-0143048P.
99US-0144758P.
99US-0145698P.
                                                                                                                                                                                                                                                                                                                            99US-0146222P.
99US-0149396P.
99WO-US021090.
                                                                                                                                                               98US-0097978P.
98US-0097979P.
98US-0097986P.
                                                                                                                                                                                                      98WO-US019330.
98WO-US019330.
98US-0100858P.
                                                                                                                                                                                                                              98WO-US019437.
98WO-US021141.
98WO-US025108.
98US-0113296P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US005841.
2000WO-US006319.
2000WO-US006884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US014042.
2000WO-US014941.
2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                    99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                    99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                           99WO-US030095
99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                            US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US013358
2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0213637P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US020710.
2000WO-US022031.
                                                                                                                                                                                                                                                             99WO-US000106
99WO-US005028
                                                                                                                                                                                                                                                                                      99WO-US012252.
99US-0141037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US023522
                                                                                                                                                                                       98US-0098014P
                                                                                                                                                                                                                                                                               99US-0123957P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
20-MAR-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                           11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                           15-SEP-1999;
15-SEP-1999;
08-OCT-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAY-2000;
                                                        18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
19-AUG-1998;
20-AUG-1998;
                                                                                                              24-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
26-AUG-1998
                                                                                                                                                                                              31-AUG-1998;
16-SEP-1998;
16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
                        17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                             12-MAR-1999;
02-JUN-1999;
23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                             JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                     -JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                           16-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-1999;
                                                                                                                                                                                                                                                                                                     07-JUL-1999
20-JUL-1999
                                                                                                                                                                                                                                                               -JAN-1999
                                                                                                                                                                                                                                                                      08-MAR-1999
                                                                                                                                                                                                                                                                                                                      JUL-1999
                                                                                                                                                                                                                                                                                                                             28-JUL-1999
                                                                                                                                                                                                                                               01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
```

```
;
0
                                                                              9
                                                                                                                   9
                                                                                                    hypertrophy of neontal heart; processing processing and other and processing according to the factor of the second processing and the second processing according to the second processing according to the second processing and according to the second processing 
                                                                          1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                      Gaps
                                      .
                                      Indels
                   9.8e-49;
tes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRO; secreted protein; transmembrane protein;
                                                                                                                                                                                                                                                                                                                                                                                                                               Human secreted/transmembrane protein PRO1159
                                      Mismatches
                                                                                                                                                             90
                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAREAWGRGVKKNT 90
                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                   Pred. No.
                                                                                                                                                                                                                                                                                                          ADC12088 standard; protein; 90 AA.
100.08; Pr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9705-0049787P.
9705-0062250P.
9705-0065186P.
9705-0065111P.
9705-0065111P.
9805-0075945P.
9805-0084600P.
9805-0087609P.
9805-0087609P.
9805-0087609P.
9805-0088028P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0088734P.
98US-0088738P.
98US-0088742P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0088810P.
98US-0088824P.
98US-0088826P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-NOV-2001; 2001US-00997514
                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                   Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003049681-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-NOV-1997;
25-FBB-1998;
28-APR-1998;
07-MAY-1998;
07-MAY-1998;
02-UN-1998;
02-UN-1998;
04-UN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -JUN-1998;
-JUN-1998;
-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                         18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                ADC12088;
                                                                                                                                                               61
                                                                                                                                                                                                                                                                 RESULT 120
                                                                                                                                                                                                                                                                                         ADC12088
                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                               ð
```

18-0088858 18-00888618 15-0088165 15-0089408 15-00895128 15-00895148 15-00895387 15-00895387 15-00895387 15-00895387 15-00895387 15-00895387 15-00895387 15-00895387 15-008965387 15-008965387 15-008965387	8US-0089948P. 8US-0089952P. 8US-0090254P. 8US-0090254P. 8US-0090349P. 8US-0090431P. 8US-0090444P. 8US-0090444P. 8US-0090444P. 8US-0090444P. 8US-0090646P. 8US-009064P. 8US-009064P. 8US-009064P. 8US-009064P. 8US-009064P. 8US-009064P. 8US-009064P. 8US-009069P.	US-0091628P US-0091628P US-0091646P US-00916473P US-0091978P US-0091978P US-0091978P US-0094651P US-0094651P US-0095302P US-0095302P US-0095302P US-0095302P US-0095302P US-0095302P US-0095302P US-0095302P US-0095302P US-0095302P US-0096143P US-0096149P
1.00N 1998; 99 1.00N 1998; 90 1.00N 1998; 99 1.00N 1998; 90 1.00N 1998; 99 1.00N 1998; 99 1.00N 1998; 90 1.00N 1998; 90 1.00N 1998; 90 1.00N 1998; 90 1.00N	19-00N-1998; 98-22-JUN-1998; 98-22-JUN-1998; 98-23-JUN-1998; 98-24-JUN-1998; 98-24-JUN-1998; 98-24-JUN-1998; 98-24-JUN-1998; 98-24-JUN-1998; 98-24-JUN-1998; 98-25-JUN-1998; 9	2. UUL-1998; 9 2. UUL-1998; 9 2. UUL-1998; 9 2. UUL-1998; 9 3. UUL-1998; 9 4. UUL-1998; 9 4. UUL-1998; 9 4. AUG-1998; 9 4. AUG
	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	

0;

Query Match 100.0%; Score 462; DB 7; Length 90; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0; Indels 0; Gaps

Page 133

```
9805-0089514P

9805-0089532P

9805-0089532P

9805-0089599P

9805-0089500P

9805-0089500P

9805-0089500P

9805-0089500P

9805-0089500P

9805-0089500P

9805-008950P

9805-008950P

9805-008950P

9805-008950P

9805-008950P

9805-008950P

9805-008950P

9805-008950P

9805-008950P

9805-0090542P

9805-0090544P

9805-0090542P

9805-0090544P

9805-0090542P

9805-0090544P

9805-009054P

9805-009054P

9805-009054P

9805-009054P

9805-009054P

9805-009054P
 16-70N-1298;
17-70N-1298;
17-70N-1298;
17-70N-1298;
17-70N-1298;
17-70N-1298;
18-70N-1298;
18-70N-1298;
18-70N-1298;
19-70N-1298;
19-70N-1298;
19-70N-1298;
19-70N-1298;
22-70N-1298;
22-70N-1298;
                                                                                                                                                      23-UUN-1998;
23-UUN-1998;
24-UUN-1998;
24-UUN-1998;
24-UUN-1998;
24-UUN-1998;
                                                                                                                                                                                                                                          24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-AUG-1998;
10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-AUG-1998,
11-AUG-1998,
12-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
17-AUG-1998,
                                                                                                                                                                                                                                                                                                                      25-JUN-1998;
                                                                                                                                                                                                                         24-JUN-1998)
                                                                                                                                                                                                                                                                                                               25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-AUG-1998
  Human; PRO; pancreatic beta-cell precursor cell; pancreatic beta-cell; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; oystic renal dysplasia; polycystic kidney disease; renal tumour; antidiabetic; antianaemic; cytostatic; cardiant; vulnerary; antinflammatory; anorectic.
  MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                       ADC56510 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                    9705-0049787P

9705-0062250P

9705-006511P

9705-0065711P

9705-0066770P

9805-0078910P

9805-0078910P

9805-0078910P

9805-0078910P

9805-0078910P

9805-0078910P

9805-0078910P

9805-007910P

9805-007910P
                                                                                                                                                                                                                                                                                                    15-NOV-2001; 2001US-00997857
                                                                                                                                                                 Human PRO polypeptide #118.
                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                               US2003064375-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04 - UUN - 1998;
05 - UUN - 1998;
10 - UUN - 1998;
                                                                                                                                                                                                                                                                                                                     16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
25-FEB-1998;
20-MAR-1998;
77-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-JUN-1998;
11-JUN-1998;
11-JUN-1998;
12-JUN-1998;
16-JUN-1998;
16-JUN-1998;
                                                                                                                                              18-DEC-2003
                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                   28-MAY-1998;
02-JUN-1998;
02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                              02-JUN-1998;
03-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                 03-APR-2003.
                                                                                                                          ADC56510;
                                                                                      RESULT 121
                  g
                                                                                                                 ò
                                                        g
```

```
PRO; secreted protein; transmembrane protein; hypertrophy of neonatal heart; angiogenesis; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; Tlymphocyte proliferation; retinal neuron; c-fos induction; adipocyte cell; chondrocyte differentiation; pancreatic beta-cell precursor differentiation; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer;
                                                                                                                                               Human secreted/transmembrane protein PRO1159.
                         90
                  61 GKGIVKGRNLDSRGLILGARAWGRGVKKNT
   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                               ADC07565 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0088029P
98US-0088030P
98US-0088326P
98US-0088167P
98US-0088212P
98US-0088217P
98US-0088217P
98US-0088734P
98US-0088734P
98US-0088734P
98US-0088734P
                                                                                                                                                                                                                                                                                                                                                            97US-0049787P.
97US-0062250P.
97WO-US020069.
                                                                                                                                                                                                                                                                                                                                                                                             970S-0065186P
970S-0065311P
970S-0065311P
980S-0075945P
980S-0084600P
980S-0084600P
980S-0087607P
980S-0087607P
980S-0087607P
980S-0087607P
980S-0087607P
980S-0087607P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9805-0088826P.
9803-0088858P.
9803-0088861P.
9803-0089105P.
9803-0089440P.
9803-0089512P.
                                                                                                                                                                                                                                                                                                                                        2001US-00997542
                                                                                                                          (first entry)
                                                                                                                                                                                                                                                rod photoreceptor cell
                                                                                                                                                                                                                                                                                            US2003068647-A1.
                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                        15-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1998;
02-JUN-1998;
                                                                                                                          18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-JUN-1998;
                                                                                                                                                                                                                                                                                                                   10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-1997
12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                        13-NOV-1997
24-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                           20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                              16-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                25-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -JUN-1998
                                                                                                     ADC07565;
                                                                   ADC07565
                                                        RESULT
                                                                               à
                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
tive 0; Mismatches 0;
98US-0096949P.
98US-0096950P.
98US-0096950P.
98US-0097022P.
98US-0097141P.
98US-0097611P.
98US-0097971P.
98US-009794P.
98US-0097974P.
98US-0097974P.
                                                                                                                                                                                                                                              98WO-US021141.
98WO-US025108.
98US-0113296P.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                     99US-0143048P
99US-0144758P
99US-014629B
99US-0146222P
99US-0149396P
99WO-US021090
                                                                                                                                                                                                                                                                                                     99US-0123957P.
99WO-US012252.
99US-0141037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US008439.
2000WO-US013358.
2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-MAY-2000; 2000WO-US014042
30-MXY-2000; 2000WO-US014941.
02-UTN-2000; 2000WO-US015264.
23-JUN-2000; 2000US-0213637P.
                                                                                                                                                                                                                          98US-0100858P.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0158663P.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US006319.
2000WO-US006884.
2000WO-US007377.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-JUL-2000; 2000WO-US020710
11-AUG-2000; 2000WO-US022031
23-AUG-2000; 2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US003565
2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004414
2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
Les 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAR-2000; 2
15-MAR-2000; 2
20-MAR-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-MAR-2000; 2
15-MAY-2000; 2
17-MAY-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
19-AUG-1998;
20-AUG-1998;
                                                                             24-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                          26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                     12-MAR-1999;
02-JUN-1999;
23-JUN-1999;
                                                                                                                         26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                         31-AUG-1998;
16-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                  17-AUG-1999;
15-SEP-1999;
15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                   08-OCT-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JAN-2000;
                                                                                                                                                                                                                                                07-OCT-1998;
01-DEC-1998;
                                                                                                                                                                                                                          17-SEP-1998
                                                                                                                                                                                                                                       17-SEP-1998
                                                                                                                                                                                                                                                                       22-DEC-1998
                                                                                                                                                                                                                                                                                05-JAN-1999
                                                                                                                                                                                                                                                                                                                                       07-JUL-1999
20-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
```

요 원

S-0089514P S-0089538P S-0089538P S-0089538P S-0089539P S-008953P S-008953P S-008953P S-008953P S-008954P S-0090528P S-0090528P	\$\begin{array}{c} \text{S} \text{C} \text{S} \text{S} \text{C} \te	S-0096329P S-0096757P S-0096768P S-0096778P S-0096871P S-0096891P S-0096891P S-0096891P
980 11998; 980	980 980 980 980 980 980 980 980	1998; 980 1998; 980 1998; 980 1998; 980 1998; 980 1998; 980 1998; 980
100-100-100-100-100-100-100-100-100-100	PR 23-009 PR 24-000 PR 24-000 PR 24-000 PR 24-000 PR 24-000 PR 25-000 PR 26-000 PR 26-0000 PR 26-0	1771

\mathcal{S}

Page 136

```
9805-0089598P

9805-0089599P

9805-0089599P

9805-0089599P

9805-0089603P

9805-00899807P

9805-00899807P

9805-00899807P

9805-00899807P

9805-00899807P

9805-0089987P

9805-0089987P

9805-0089987P

9805-0089987P

9805-0089987P

9805-008998P

9805-008998P
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
17-JUN-1998;
18-JUN-1999;
18-JUN-1999;
18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-AUG-1998;
10-AUG-1998;
11-AUG-1998;
                                                                                            0-JUN-1998;
2-JUN-1998;
2-JUN-1998;
                                                                                                                                                                              4-JUN-1998;
                                                                                                                                                                                                                                                                                                                              26-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-AUG-1998;
17-AUG-1998;
                                                                        19-JUN-1998
                                                                                                                                       .00N-1998
                                                                                                                                                         24-JUN-1998
                                                                                                                                                                                                                                  24-JUN-1998
                                                                                                                                                                                                                                                      24-JUN-1998
                                                                                                                                                                                                                                                                                                         25-JUN-1998
                                                                                                                                                                                                                                                                                                                    25-JUN-1998
                                                                                                                                                                                                   24-JUN-1998
                                                                                                                                                                                                            24-JUN-1998
                                                                                                                                  PRO; secreted protein; transmembrane protein; hypertrophy of neonatal heart; angiogenesis; vascular endothelial growth factor; VBGF-stimulated proliferation; vascular endothelial cell; T-lymphocyte proliferation; retinal neuron; c-fos induction; adipocyte cell; chondrocyte differentiation; pancreatic beta-cell precursor differentiation; gene therapy; tumour; cancer; human; colon cancer; lung cancer; breast cancer; rod photoreceptor cell.
                                                                                                                Human secreted/transmembrane protein PRO1159.
  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                    ADC11555 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                     97WO-US020069
97WS-006518RP
97US-006518RP
97US-006513LP
98US-0075945P
98US-0081322P
98US-0081322P
98US-0081706P
98US-0081706P
98US-0081759P
98US-0081759P
98US-0081759P
98US-0081759P
98US-008173P
98US-008173P
98US-008173P
98US-008173P
98US-0088174P
98US-0088174P
98US-0088174P
98US-0088174P
98US-0088174P
98US-008817P
98US-00881P
98US-00881P
98US-00881P
98US-00881P
98US-00881P
98US-00881P
98US-00881P
98US-00881P
98US-00881P
                                                                                                                                                                                                                                                                                                                 97US-0049787P.
                                                                                                                                                                                                                                                                                             14-NOV-2001; 2001US-00993748
                                                                                            18-DEC-2003 (first entry)
                                                                                                                                                                                                                                                   US2003069403-A1.
                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                           13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-JUN-1998;
05-JUN-1998;
05-JUN-1998;
05-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-JUN-1998;
11-JUN-1998;
11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4-JUN-1998;
4-JUN-1998;
4-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-7UV-1998
                                                                                                                                                                                                                                                                         10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-JUN-1998
                                                                         ADC11555;
                               RESULT
  셤
```

```
98US-0096960P
98US-009702P
98US-0097218P
98US-009761P
98US-0097952P
98US-0097955P
98US-0097951P
                                                                                  98US-0097978P.
98US-0097979P.
98US-0097986P.
                                                                                                         98US-0098014P.
98US-0098525P.
98US-0100634P.
98WO-US019330.
                                                                                                                                         98US-0100858P.
                                                                                                                                                98WO-US019437.
                                                                                                                                                         98WO-US021141.
                                                                                                                                                                               99WO-US000106,
99WO-US005028,
                                                                                                                                                                                                     99WO-US012252.
99US-0141037P.
                                                                                                                                                                                                                           99US-0144758P.
                                                                                                                                                                                                                                            99US-0146222P.
                                                                                                                                                                                                                                                                                  99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                              2000WO-US004914.
                                                                                                                                                                98WO-US025108
                                                                                                                                                                        98US-0113296P
                                                                                                                                                                                               99US-0123957P
                                                                                                                                                                                                                     99US-0143048P
                                                                                                                                                                                                                                                           99WO-US021090.
99WO-US021547.
                                                                                                                                                                                                                                                                           99US-0158663P.
                                                                                                                                                                                                                                                                                                  99WO-US028634
                                                                                                                                                                                                                                                                                                                 99WO-US030911,
2000WO-US000219,
                                                                                                                                                                                                                                                                                                                                2000WO-US000376.
2000WO-US003565.
                                                                                                                                                                                                                                                                                                                                                       2000WO-US004414.
                                                                                                                                                                                                                                                                                           99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US013358
2000WO-US013358
2000WO-US013705
                                                                                                                                                                                                                                                                                                                                               2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0213637P
                                                                                                                                                                                                                                                                                                                      05-JAN-2000;
06-JAN-2000;
18-FBB-2000;
22-FBB-2000;
24-FBB-2000;
24-FBB-2000;
02-MAR-2000;
01-MAR-2000;
15-MAR-2000;
                            20-AUG-1998;
24-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                           26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                01-DEC-1999;
16-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                     08-MAR-1999;
12-MAR-1999;
02-JUN-1999;
23-JUN-1999;
                                                                                                                                                                                                                                                                 15-SEP-1999;
08-OCT-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                   20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAY-2000;
17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-2000;
                                                                                                                                16-SEP-1998;
17-SEP-1998;
                                                                                                          26-AUG-1998
                                                                                                                                                               01-DEC-1998;
22-DEC-1998;
                                                                                                                                                17-SEP-1998
                                                                                                                                                         07-0CT-1998
                                                                                                                                                                                                                           20-JUL-1999
                                                                                                                                                                                                                                                  17-AUG-1999
15-SEP-1999
                                                                                                                                                                                                                                            28-JUL-1999
```

```
ó;
   Length 90;
                           Indels
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                          Conservative
             Similarity
                          90;
 Query Match
Best Local S
Matches 90
                                                                          d
```

ö

09 09 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

61

ò

```
Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FFA uptake modulator; cell proliferation; beall differentiation; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder; halassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                              Novel human secreted and transmembrane protein PRO1159.
                        ADC50515 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                       02-JUN-1999; 99WO-US012252.
25-AUG-1999; 99US-00380137.
37-MAR-2000; 2000WO-US008439.
01-DEC-2000; 2000WO-US032679.
                                                                                                                                                                                                                                                                                                                                                      24-APR-2002; 2002US-00131822
                                                                                                                                                                                                                                                                                                                                                                                                                                          19-DEC-2001; 2001US-00028072
                                                                        (first entry)
                                                                                                                                                                                                                                                                                                       JS2003092106-A1.
                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                              19-AUG-1998;
                                                                       18-DEC-2003
                                                                                                                                                                                                                                                                                                                               15-MAY-2003
                                                ADC50515;
RESULT 124
            ADC50515
```

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G: ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, Gerritsen ME, Smith V, Stew Baker KP,

(GETH) GENENTECH INC.

New secreted and transmembrane nucleic acid useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, acquired immunodeficiency WPI; 2003-801171/75. N-PSDB; ADC50514. syndrome or cancer.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating cantisense RNA and DNA and in gene therapy. The polynucleotides may also attisense RNA and DNA and in gene therapy. The polynucleotides may also generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FFA (free fatty acid) by skeletal muscle cells or adjocyte

```
cells, for stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in perioque cells, for stimulating proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage are useful for treating sports-related joint arthritis. PRO polypeptides are also useful for treating various arthritis and onditions which may benefit from enhanced local immune system cell inflitration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence.html.
```

Sequence 90 AA;

```
9
                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                    Gaps
                                    ö
   Length 90;
                                  Indels
                                    .
0
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
               Local Similarity 100.
 Query Match
                                Matches
                                                                   ò
                                                                                                셤
                                                                                                                                 ð
```

RESULT 125 ADC72062

ADC72062 standard; protein; 90 AA.

18-DEC-2003 (first entry)

Novel human secreted and transmembrane protein PRO1159.

Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FFA uptake modulator; cell proliferation; peridyte cell; inner ear utricular supporting cell; Tlymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; articular cartilage defect; osteoarthritis; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.

Homo sapiens

US2003092107-A1.

15-MAY-2003

98US-0103315P 18-OCT-1999; 18-FEB-2000; 07-0CT-1998; 01-SEP-1999;

24-APR-2002; 2002US-00131B28.

99WO-US020111. 99US-00403297. 2000WO-US0304342. 2000WO-US030873. 2001US-00028072 19-DEC-2001; 10-NOV-2000; 01-DEC-2000;

(GETH) GENENTECH INC.

Gao W; Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, (Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The proplication probes, in chromosome and gene mapping, in generating antisense RNA and bNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of stimulating and inhibiting proliferation of since and used in precipte cells, for stimulating the proliferation of inner ear utricular supporting cells or stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for treating various bone and/or cartilage disorders such as sports injuries or articular articular supporting cells or and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating various for articlage are useful for treating sports related joint proteoglycans from cartilage are useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias mammalian haemoglobin-associated disorders such as various thalassaemias mammalian haemoglobin-associated disorders such as various thalasses of infiltration. This sequence repeated are such as provedure or the sequence endered and solonistions which may benefit and such an avenue and solon
                                                                                                                                 New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or
     Ζ;
  Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 electronic format from USPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 90;
  Wood WI,
     Watanabe CK,
                                                                                                                                                                                                                                                                Claim 12; Fig 474; 637pp; English.
     Tumas D,
Stewart TA,
                                                 WPI; 2003-801172/75.
                                                                               N-PSDB; ADC72061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 90 AA;
Smith V,
```

09 09 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT Gaps ٠, 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; Mismatches 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 ; 90; Conservative Query Match Best Local Similarity Matches 90; Conserv П à

ö

ADC60041 standard; protein; 90 AA. (first entry) 18-DEC-2003 ADC60041; ADC60041

Novel human secreted and transmembrane protein PRO1159.

Human; secreted and transmembrane protein, PRO, secreted polypeptide, transmembrane polypeptide, tumour necrosis factor-alpha; TNF-alpha;

Sequence 90 AA;

S

rectum, kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FFA uptake modulator; cell proliferation; cell differentiation; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rhemmatoid arthritis; haemoglobin-associated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker. chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;

Homo sapiens

US2003092105-A1.

15-MAY-2003.

24-APR-2002; 2002US-00131821.

99US-0170262P. 09-DEC-1999;

01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH .) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Goddard A, Beresini M, Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-801170/75. N-PSDB; ADC60040. New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and see the proceeding the polynucleotides and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful campants. The RVD polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for antibodies, for stimulating differentiation of adipocyte cells, for stimulating the proliferation of inner ear utricular supporting cells or stimulating the proliferation of inner ear utricular supporting or juries and arrhitic BDO nolvaentiase which either this proless. joint trading various bone among the protection of the

99WO-US028551

```
0;
                                          9
                                                                9
                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNXENHSQPTQSSLEDSVTFTKAVKTT
                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                     0; Gaps
                                                                                                                                                                                                                                                            cell proliferation, cell migration, cell differentiation; mitogenic factor, survival factor; ortotoxic factor; differentiation factor; neuropeptide; hormone; cell receptor receptor-ligand interaction, cytostatic; chondrocyte; tumour.
                                                                                                                                                                                                                                                  human; PRO; membrane bound protein; membrane bound receptor;
 Length 90;
                                                                                                                                                                                                                             Novel human secreted and transmembrane protein Seg ID474.
                     Indels
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                     90
                                                                                                      61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                              ADC53048 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US020111
99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                 23-APR-2002; 2002US-00128689
                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US017888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US022
                     90; Conservative
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                      US2003087365-A1.
                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                         18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-OCT-1998
20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                           08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -OCT-1999
                                                                                                                                                                                   ADC53048;
                                                                                                                                          RESULT 127
                     Matches
                                                                                                                                                      ADC53048
                                                                                                                                                                                   g
                                                                셤
                                                                                     ð
```

```
99WO-US030999
99WO-US030720
                                                      99WO-US031274
                                                                                                2000WO-US004342
                                                                                                                                                   2000WO-US006884.
2000WO-US007377.
                                                                                                                                                                                                                                                          2000WO-US032678,
                                                                                                                                                                                                                                                                                2001US-00796498
                                                                                                                                                                                                                                                                                                     2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                                                                                                    001US-00816744.
                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US021066.
2001WO-US021735.
                        99WO-US030911
                                             99WO-US031243
                                                                    2000WO-US000277
                                                                                          2000WO-US004341
                                                                                                                                                                                                                                     2000WO-US023328
                                                                                                                                                                                                                                                  2000WO-US030873
                                                                                                                                                                                                                                                                         2000WO-US034956
                                                                                                                                                                                                                                                                                              001WO-US006666
                                                                                                                                                                                                                                                                                                                           001US-00828366
                                                                                                                                                                                                                                                                                                                                 001US-00854208
                                                                                                                                                                                                                                                                                                                                          2001US-00854280
                                                                                                                                                                                                                                                                                                                                                 2001US-00860216
                                                                                                                                                                                                                                                                                                                                                         001US-00866028
                                                                                                                                                                                                                                                                                                                                                              2001US-00866034
                                                                                                                                                                                                                                                                                                                                                                       001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00887879
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00924419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00908827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            001US-00931836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                         06-JAN-2000; 2
11-FEB-2000; 2
18-FEB-2000; 2
18-FEB-2000; 2
22-FEB-2000; 2
24-FEB-2000; 2
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                   14-JUN-2001;
19-JUN-2001;
20-JUN-2001;
                                                                  06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                               18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                         01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUN-2001;
                                                                                                                                                   -MAR-2000;
-MAR-2000;
-MAR-2000;
                                                                                                                     24-FEB-2000;
01-MAR-2000;
                                                                                                                                                                                                                            23-AUG-2000;
24-AUG-2000;
                                                                                                                                                                                                                                                  10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                         10-MAY-2001;
                                                                                                                                          MAR-2000
                                                                                                                                                                                                                                                                        20-DEC-2000
                                                                                                                                                                                               30-MAY-2000
                                                                                                                                                                                                                     11-AUG-2000
                                                                                                                                                                                                                                                                                                           14-MAR-2001
22-MAR-2001
                                                                                                                                                                                       MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JUN-2001
                                                                                                                                                                         30-MAR-200
17-MAY-200
```

Gao W; Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge Gerritsen ME, Goddard A, Godwoski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-801150/75

```
This invention relates to novel nucleic acids encoding human PRO secreted and transmembrane proteins. Extracellular proteins play important roles in the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells (for example proliferation, organisms. The fate of many individual cells (for example proliferation, migration or differentiation) is typically governed by information received from other cells and the immediate environment. The information is often transmitted by secreted polypeptides (for example mitogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors may be of use as pharmaceutical and diagnostic agents, such as in the blocking of receptor-ligand interactions. The current invention provides the amino acid sequences of novel human membrane bound receptors and proteins, along with the cDNA sequences encoding them. The novel proteins of the invention may have cytostatic activities through the stimmlation of chondrocytes. The nucleic actids of the invention may be tumour in a mammal. In addition, they may be useful for measuring or detecting the expression of a tumour associated gene. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                      New PRO nucleic acid, useful for manufacturing a medicament for diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human; PRO; membrane bound protein; membrane bound receptor; cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; ortocoxic factor; differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human secreted and transmembrane protein Seg ID474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                  Claim 1; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADC57402 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; 2000WO-US015841.
; 2000WO-US014941.
; 2000WO-US032678.
; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-APR-2002; 2002US-00128694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
N-PSDB; ADC53047.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003087366-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAR-2000; 2
30-MAY-2000; 2
01-DEC-2000; 2
19-DEC-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADC57402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADC57402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
```

Wed Jun

```
This invention relates to novel nucleic acids encoding human PRO secreted and transmembrane proteins. Extracellular proteins play important roles in the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells (for example proliferation, migration or differentiation) is typically governed by information received from other cells and the immediate environment. The information is often transmitted by secreted polypeptides (for example mitogenic factors, survival factors, cytoxoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors may be of use as pharmacoutical and diagnostic agents, such as in the blocking of receptor-ligand interactions. The current invention provides the amino acid sequences of novel human membrane bound receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FFA uptake modulator; cell proliferation; periorte cell; adipocyte cell; periorte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder; halassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proteins, along with the CDNA sequences encoding them. The novel proteins of the invention may have cytostatic activities through the stimulation of chondrocytes. The nucleic acids of the invention may be useful for the manufacture of a medicament for diagnosing or treating a tumour in a mammal. In addition, they may be useful for measuring or detecting the expression of a tumour associated gene. The present sequence is the amino acid sequence of a human PRO protein of the
                                            Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                          Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                 New PRO nucleic acid, useful for manufacturing a medicament for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADC60593 standard; protein; 90 AA.
                                                                                                                                                                                                                             diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90; Conservative
(GETH ) GENENTECH INC.
                                                                                                                                 WPI; 2003-801151/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                           N-PSDB; ADC57401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC60593;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
```

δ

δ

```
24-APR-2002; 2002US-00131825
                                                                                                                                                                                                                                                                                                                               2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US004914.
                                                                                                                                      98WO-US018824
                                                                                                                                                                98WO-US019094
                                                                                                                                                                              98WO-US019177
                                                                                                                                                                                            98WO-US019330
                                                                                                                                                                                                                    98WO-US021141
                                                                                                                                                                                                                                                                          98WO-US025108
                                                                                                                                                                                                                                                                                                    99WO-US005028
                                                                                                                                                                                                                                                                                                                 99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :000WO-US004342
                                                                                                                                                                                                                                   98WO-US022991
                                                                                                                                                                                                                                                                                                                                                          99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1000MO-US005601
US2003087367-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-FEB-2000;
                                                                                                                                                                                                                                                            1998;
                                                                                                                                                                                                                                                                                                    999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1999;
                         08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                       2-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-DEC-1999
                                                                                                                                                                                                                                                           NOV-1
                                                                                                                                                                                                                                                                                                               10-MAR-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-NOV-
                                                                                                                                                                                                                                                                                       05-JAN-
                                                                                                                                                                                                                                                                                                                                                        4-MAY-
```

```
10 NOV-2000; 200MC-US030873.
11 NOV-2000; 2000MC-US030873.
20-DEC-2000; 2000WC-US032678.
20-DEC-2000; 2000WC-US034578.
20-DEC-2000; 2000WC-US034559.
28-FEB-2001; 2001WC-US034556.
10-MAR-2001; 2001WC-080666.
09-MAR-2001; 2001WC-080666.
09-MAR-2001; 2001WS-00816744.
05-APR-2001; 2001WS-00816744.
05-APR-2001; 2001WS-00816744.
05-APR-2001; 2001WS-00818786.
10-MAY-2001; 2001WS-00854208.
                                                                                                                                                                 25-MAY-2001; 2001W0-US017092.
01-JUN-2001; 2001W0-US017092.
05-JUN-2001; 2001W2-00874503.
14-JUN-2001; 2001US-00874503.
14-JUN-2001; 2001US-00882636.
19-JUN-2001; 2001US-00886342.
20-JUN-2001; 2001WS-US019692.
                                                                                                                                                                                                                             21-JUN-2001; 2001W3-00887879.
22-JUN-2001; 2001W0-US021016.
29-JUN-2001; 2001W0-US021066.
09-JUL-2001; 2001W3-00908827.
06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00924419.
                                                                                                                    2001US-00854208.
2001US-00854280.
2001US-00860216.
2001US-00866028.
2001US-00866034.
                                                                                                                                                                                                                                                                                          16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
                                                                                                                                       18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
01-JUN-2001;
23-AUG-2000;
24-AUG-2000;
08-NOV-2000;
```

(GETH) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff B, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, Æ, Goddard Stewart TA, Baker KP, Bere Gerritsen ME, Smith V, Stewa

WPI; 2003-801152/75. N-PSDB; ADC60592.

New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide and for manufacturing a medicament for diagnosing or treating tumor.

Claim 12; Fig 474; 638pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNP-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The proliferation probes, in chromosome and gene mapping, including uses as thy bridisation probes, in chromosome and gene mapping, in generating a chorise serving either transgenic antimals winch are serving either transgenic animals or knock-out animals which are generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful cagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or mithodies, such as tumours, for stimulating and inhibiting proliferation of stimulating and inhibiting proliferation of stimulating proliferation of seconds. Cells, for cells, for stimulating proliferation of serving in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or I-lymphocyte cells, for I-lym

```
treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various ammanian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence.html.
                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                          09
                                                                                                                                                                                                                                                                                                                                                        Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrooyte; tumour; adreani; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; microvascular endothelial cell; elfferentiation; Refletal muscle cell; adipocyte cell; poliferation; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gao W;
                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                      100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC51068 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US020111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-FEB-2000; 2000WO-US004342.
01-DEC-2000; 2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-APR-2002; 2002US-00127841,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0099536P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00028072.
                                                                                                                                                                                                                                            Ouery Match
Best Local Similarity 100.(
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-801146/75.
N-PSDB; ADC51067.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003087361-A1.
                                                                                                                                                                                                                    Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADC51068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 130
      à
```

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the problemic or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene Larapy. The polymucleotides may also antisense RNA and DNA and in gene Larapy. The polymucleotides may also generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of antibodies, such as tumours, for summlating and inhibiting proliferation of colls, for modulating the uptake of glucose or FFA (free fatty acid by skeletal muscle cells, for stimulating differantian of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disporders such as sports injuries or propertion of and propertion of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disporders such as sports injuries. The proliferation of and the tells of the transfer of the tells of the proliferation of and the tells of the expension of the tells of the endother of the end proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid PRO nucleic acid, useful for preparing a recombinant PRO polypeptide for manufacturing a medicament for diagnosing or treating tumor. arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html. Claim 12; Fig 474; 637pp; English.

Sequence 90 AA;

0 9 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT Gaps 0 Length 90; 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; 0; Mismatches 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 Conservative Query Match Best Local Similarity Matches 90; Conservat ò

ADC65595 standard; protein; 90 AA ADC65595

ADC65595;

(first entry) 18-DEC-2003

Human PRO polypeptide #237.

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothalal cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothalial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymuclectides encoding them. The invention also relates to an autibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as in chromosome and gene mapping, in generating a missense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful conditions. For such as tumours, for stimulating and inhibiting proliferation of or fuman microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of adipocyte cells, for stimulating cells or translance cells, for inducing endothelial cell tube formation and for treating cells, for atthicts and arthurts proplement are useful for treating such as utriculate the release of proteoglycans from cartilage are useful or treating and contributes and cells, for inducing endothelial cells the release of proteoglycans from cartilage are useful certain such relation sort proplement. from cartilage are useful for treating sports related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO POLYPeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalssaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; New PRO nucleic acid, useful for manufacturing a medicament for Length 90; Query Match
100.0%; Score 462; DB 7;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0; JSPTO at segdata.uspto.gov/seguence.html Claim 12; Fig 474; 637pp; English. immune system cell infiltration. 22-APR-2002; 2002US-00127844. 05-JUN-2000; 2000US-0209832P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072. diagnosing or treating tumor. Beresini M, D (GETH) GENENTECH INC Stewart TA, WPI; 2003-801147/75. N-PSDB; ADC65594 US2003087362-A1 Sequence 90 AA; Gerritsen ME, 08-MAY-2003 Baker KP, Smith V,

·; Indels

ò g 8

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

```
61
```

ADC54693 standard; protein; 90 RESULT 132 ADC5469.

ADC54693;

(first entry) 18-DEC-2003

Novel human secreted and transmembrane protein Seq ID474.

cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; oytotoxic factor; differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour. membrane bound protein; membrane bound receptor; human; PRO;

Homo sapiens

US2003087363-A1.

08-MAY-2003

23-APR-2002; 2002US-00128687

10-SEP-1998; 98US-0099816P. 01-SEP-1999; 99US-00403297. 18-OCT-1999; 99US-00403297. 18-FEB-2000; 2000WO-US004342. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G, Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

3

WPI; 2003-801148/75. N-PSDB; ADC54692

PRO nucleic acid, useful for preparing a recombinant PRO polypeptide for manufacturing a medicament for diagnosing or treating tumor. New

Gao W;

rwood S; Zhang Z;

Filvaroff E,

Deforge L, Desnoyers L, Filvar A, Godowski PJ, Gurney AL, She: Tumas D, Watanabe CK, Wood WI,

Baker KP, Beresini M, Def Gerritsen ME, Goddard A, Smith V, Stewart TA, Tuma

WPI; 2003-801149/75. N-PSDB; ADC53653.

(GETH) GENENTECH INC.

Claim 1; SEQ ID NO 474; 637pp; English.

This invention relates to novel nucleic acids encoding human PRO secreted and transmembrane proteins. Extracellular proteins play important roles and transmembrane proteins. Extracellular proteins play important roles in the formation, differentiation and maintenance of multicellular corganisms. The fate of many individual cells (for example proliferation, migration or differentiation) is trypically governed by information areceived from other cells and the immediate environment. The information is often transmitted by secreted polypeptides (for example mitogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors may be of use as pharmaceutical and diagnostic agents, such as in the blocking of receptor-ligand interactions. The current invention corrections of the invention may have cytostatic activities through the proteins of the invention may have cytostatic activities through the cuseful for the manufacture of a medicament for diagnosing or treating a ctumour in a mammal. In addition, they may be useful for measuring or detecting the expression of a tumour associated gene. The present nvention.

Sequence 90 AA;

```
ö
                                            9
                                                             9
                                                           1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                         Gaps
                        .;
                                                                                                                                                                                                                                  cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; cytotoxic factor; differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour.
                                                                                                                                                                                                                         human; PRO; membrane bound protein; membrane bound receptor;
     Length 90;
                                                                                                                                                                                                     Novel human secreted and transmembrane protein Seq ID474.
                        Indels
    Score 462; DB 7;
Pred. No. 9.8e-49;
; Mismatches 0;
                                                                                90
                                                                                          GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                              61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                               ADC53654 standard; protein; 90 AA.
                     ,
,
    100.0%;
                                                                                                                                                                                                                                                                                                                                                                   01-DEC-1999; 99WO-US028634.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                           99US-0119341P.
                                                                                                                                                                                                                                                                                                                                       23-APR-2002; 2002US-00128688
                                                                                                                                                                                     (first entry)
Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                  US2003087364-A1.
                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                          09-FEB-1999;
                                                                                                                                                                                    18-DEC-2003
                                                                                                                                                                                                                                                                                                                     08-MAY-2003.
                                                                                                                                                                  ADC53654;
                                                                                                                                                                  셤
                                                                              ₽
```

and transmembrane proteins. Extracellular proteins play immortant roles in the formation, differentiation and maintenance of multicellular corganisms. The fate of many individual cells (for example proliferation, corganisms. The fate of many individual cells (for example proliferation, migration or differentiation) is typically governed by information advantage or treceived from other cells and the immediate environment. The information is often transmitted by secreted polypeptides (for example mitogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors may be of use as pharmaceutical and diagnostic agents, such as in the blocking of receptor-ligand interactions. The current invention provides the amino acid sequences of novel human membrane bound receptors or provides the amino acid sequences of novel human membrane bound receptors or provides the invention may have cytostatic activities through the stimulation of chondrocytes. The nucleic actids of the invention may be useful for the manufacture of a medicament for diagnosing or treating a This invention relates to novel nucleic acids encoding human PRO secreted nucleic acid, useful for manufacturing a medicament Claim 1; SEQ ID NO 474; 637pp; English. diagnosing or treating tumor. New PRO

0;

9 9

neuropeptides and hormones) which are received and interpreted by diverse

```
1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                      1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                 0; Gaps
tumour in a mammal. In addition, they may be useful for measuring or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gao
          detecting the expression of a tumour associated gene. The present sequence is the amino acid sequence of a human PRO protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                esini M, Deforge L, Desnoyers L, Filvaroff E, G
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                         cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; vytotoxaic factor; differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour.
                                                                                                                                                                                                                                                                                                                                                                           human; PRO; membrane bound protein; membrane bound receptor;
                                                                                    100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                 Novel human secreted and transmembrane protein Seg ID474.
                                                                                                                                                                                        90
                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                             Ā
                                                                                                                                                                                                                                                                         ADCS9177 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US020111.
99US-00403297.
99WO-US028313.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-APR-2002; 2002US-00127834,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0100710P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00028072
                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                            90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Stewart TA,
                                                                                                Similarity
                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003087359-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-SEP-1998;
01-SEP-1999;
18-OCT-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2000;
19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                           18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-MAY-2003.
                                       invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Baker KP,
                                                                                      Query Match
Best Local S
                                                                                                                                                                                                                                                                                                   ADC59177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Smith V,
                                                                                                                                                                                                                                                    RESULT 134
                                                                                                           Matches
                                                                                                                                                                                                                                                                ADC59
8888838
                                                                                                                                     ò
                                                                                                                                                              셤
                                                                                                                                                                                                             qq
                                                                                                                                                                                     à
```

```
cell receptors and inclinates, minimal to the cell receptors or membrane bound proteins and receptors may be of use as pharmaceutical and diagnostic agents, such as in the blocking of receptor-ligand interactions. The current invention provides the amino acid sequences of novel human membrane bound receptors and proteins, along with the cDNA sequences encoding them. The novel proteins of the invention may have cytostatic activities through the stimulation of chondrocytes. The nucleic acids of the invention may be tuneful for the manufacture of a medicament for diagnosing or treating a tumour in a mammal. In addition, they may be useful for measuring or detecting the expression of a tumour associated gene. The present sequence is the amino acid sequence of a human PRO protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MIFFLSILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         esini M, Deforge L, Desnoyers L, Filvaroff E, G
Goddard A, Godowski PJ, Gurney AL, Sherwood S;
art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New PRO nucleic acid, useful for manufacturing a medicament for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human; PRO; membrane bound protein; membrane bound receptor; cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; oytocoxic factor; differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel human secreted and transmembrane protein Seg ID474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٠,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADC56055 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US020111.
99US-00403297.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-APR-2002; 2002US-00127836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0108802P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US015264.
2000WO-US023522.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-801145/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ADC56054,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003087360-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerritsen ME,
Smith V, Stew
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-FEB-2000;
02-JUN-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                           invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADC56055;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC56055
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HANDER KARRERER KARRER 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

This invention relates to novel nucleic acids encoding human PRO secreted

Claim 1; SEQ ID NO 474; 637pp; English.

New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide and for manufacturing a medicament for diagnosing or treating tumor.

WPI; 2003-801144/75.

N-PSDB; ADC59176

×.

and transmembrane proteins. Extracellular proteins play important roles in the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells (for example proliferation, migration or differentiation) is typically governed by information received from other cells and the immediate environment. The information is often transmitted by secreted polypeptides (for example mitogenic factors, survival factors, cytotoxic factors, differentiation factors,

WPI; 2003-801137/75.

```
Novel human secreted and transmembrane protein Seg ID474.
      Claim 1; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                                                                          ADC58625 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                             09-DEC-1999; 99US-0170262P.
01-DEC-2000; 2000MO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                   17-APR-2002; 2002US-00124815
                                                                                                                                                                                                                                                                                                                                                                  GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                              US2003087346-A1.
                                                                                                                                  Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                            09-DEC-1999;
                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                        08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                             Baker KP,
Gerritsen N
Smith V, S
                                                                                                                                                                                                                                     ADC58625;
                                                                                                                                                                                                                RESULT 136
                                                                                                                                                                                                                      ADC5862
à
                                                                                                                                                                            g
                                                                                                                                                                                       ð
```

is often transmitted by secreted polymeptides (for example mitogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors or membrane bound proteins. These membrane bound proteins as in the blocking of receptor-ligand interactions. The current invention provides the amino acid sequences of novel human membrane bound receptors and proteins along with the cDNA sequences encoding them. The novel proteins of the invention may have cytostatic activities through the stimulation of chondrocytes. The nucleic acids of the invention may be tunnous useful for the manufacture of a medicament for diagnosing or treating a tumour in a mammal. In addition, they may be useful for measuring or detecting the expression of a tumour associated gene. The present This invention relates to novel nucleic acids encoding human PRO secreted and transmembrane proteins. Extracellular proteins play important roles in the formation, differentiation and maintenance of multicallular organisms. The fate of many individual cells (for example proliferation, migration or differentiation) is typically governed by information received from other cells and the immediate environment. The information

9 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT Gaps ; 0 Length 90; Indels Query Match 100.0%; Score 462; DB 7; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0;

(first entry)

human; PRO; membrane bound protein; membrane bound receptor; cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; oytocoxic factor; differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour.

Gao W; Beresini M, Deforge L, Desnoyers L, Filvaroff E, G; ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

```
This invention relates to novel nucleic acids encoding human PRO secreted and transmembrane proteins. Extracellular proteins play important roles on the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells (for example proliferation, corganisms. The fate of many individual cells (for example proliferation, corganisms. The fate of many individual cells (for example proliferation, corganisms. The information is often transmitted by secreted polypeptides (for example miogenic is often transmitted by secreted polypeptides (for example miogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors may be of use as pharmaceutical and diagnostic agents, such as in the blocking of receptor-ligand interactions. The current invention corrections of the invention may have cytostatic activities through the proveins of the invention may have cytostatic activities through the corpuse in the manufacture of a medicament for diagnosing or treating a tumour in a mammal. In addition, they may be useful for measuring or detecting the expression of a tumour associated gene. The present consistence is the amino acid sequence of a human PRO protein of the
                                                                                            Isolated nucleic acid for use in industrial applications has at least 80 percent nucleic acid sequence identity to nucleotide sequence that encodes amino acid sequence selected from amino acid sequence group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
tive 0; Mismatches 0;
                                                                                                                                                                                             Claim 1; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
```

9 1 MIFFLSLILLLIVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT a ð g

ADC14677 standard; protein; 90 AA ADC14677; Novel human secreted and transmembrane protein PRO1159.

(first entry)

18-DEC-2003

neuroprofective, antiparkinsonian; cytostatic; gene therapy; chromosome mapping; gene mapping; transgenic animal; knock-out animal neurodegenerative disorder; Parkinson's disease; Alzheimer's disease. human; secreted and transmembrane protein; PRO; nootropic;

US2003082546-A1.

01-MAY-2003

28-AUG-2001; 2001US-00941992.

96US-00743698 06-NOV-1996;

97US-0049787P. 16-JUN-1997; 16-JUN-1997;

_
O)
æ
rag
ы
• • • • • • • • • • • • • • • • • • • •
•
_
ď
=
2
-
٦.
•
_
7
7
m
๙
•••
93a
-
N
•
σ
α
σ
1
σ
0
i.
uB
===
2
•

97US-0062250P. 97US-00965056 97WO-US020069. 97US-006511B. 97US-0066771P. 97US-0066771P. 98US-0075945P. 98US-0083322P. 98US-0084600P. 98US-0084600P. 98US-0087607P. 98US-0087607P. 98US-0087607P. 98US-0087607P. 98US-0087607P.	98US-0088028P-98US-0088028P-98US-0088033P-98US-008813P-98US-008812P-98US-0088217P-98US-0088734P-98US-0088734P-98US-008874P-98US-008861P-98US-008861P-98US-008816P-98US-008816P-98US-008910SP-98US-0089512P-98US-0089514P-98US-0089512P-98US-0089512P-98US-0089512P-98US-0089512P-98US-0089514P-98US-0089512P-98US-0089514P-98US-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-0089514P-98US-98US-0089514P-98US-98US-98US-98US-98US-98US-98US-98US	98US-0089599P 98US-0089600P 98US-0089901P 98US-0089947P 98US-0089948P 98US-0089948P 98US-0089948P 98US-0089948P 98US-0089948P 98US-0089948P 98US-0089948P 98US-008948P 98US-0090255P 98US-0090254P 98US-0090448P 98US-0090448P 98US-0090448P 98US-0090678P 98US-0090678P 98US-0090678P 98US-0090678P 98US-0090678P 98US-0090678P 98US-0090678P 98US-0090678P	
17-OCT-1999 05-NOV-1999 15-NOV-1999 13-NOV-1999 24-NOV-1999 25-FBB-1999 26-APR-1999 28-APR-1999 28-APR-1999 28-APR-1999 02-JUN-1999 03-JUN-1999 04-JUN-1999 04-JUN-1999	04 - JUN - 1996 04 - JUN - 1996 04 - JUN - 1996 05 - JUN - 1996 05 - JUN - 1996 05 - JUN - 1996 06 - JUN - 1996 07 - JUN - 1996 10 - JUN - 1996 10 - JUN - 1996 10 - JUN - 1996 11 - JUN - 1996 11 - JUN - 1996 12 - JUN - 1996 12 - JUN - 1996 16 - JUN - 1996 17 - JUN - 1998 17 - JUN - 1998 17 - JUN - 1998 17 - JUN - 1998 17 - JUN - 1998	17.70N 17.70N 18.70N 18.70N 19.70N 19.70N 19.70N 22.70N 23.70N 24	
	X X X X X X X X X X X X X X X X X X X	K K K K K K K K K K K K K K K K K K K	

98US-0090696P.
98US-00105413.
98US-0090863P.
98US-009184P.
98US-009154P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009531B.
98US-009531B.
98US-009696P.
98US-00969P.
98US-00979P.

25-JUN-1998, 26-JUN-1998, 26-JUN-1998, 26-JUN-1998, 26-JUN-1998, 26-JUN-1998, 26-JUN-1998, 26-JUN-1998, 26-JUL-1998, 26-JU

10-APR-2003

```
Human; secreted protein; transmembrane protein; PRO; neonatal heart hypertrophy; angiogenesis; stimulated proliferation; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; T-lymphocyte proliferation; retinal neuron; rod photoreceptor cell; G-fos induction; adipocyte; chondrocyte differentiation; cancer; tumour; colon cancer; lung cancer; chondrocyte differentiation; cancer; tumour; colon cancer; lung cancer; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; polycystic kidney disease; renal tumour; neurodegenerative disorder; polycystic kidney disease; renal tumour; neurodegenerative disorder; chromosome mapping; gene mapping; transgenic animal; knock-out animal; antidiabetic; antianaemic; cytostatic; nootropic; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human secreted and transmembrane protein PR01159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-1999; 99WO-USC28634.
16-DEC-1999; 99WO-USC30095.
05-JAN-2000; 2000WO-USC000319.
06-JAN-2000; 2000WO-USC000376.
11-FEB-2000; 2000WO-USC003376.
18-FEB-2000; 2000WO-USC004341.
22-FEB-2000; 2000WO-USC004341.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADD08209 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                      99WO-US021547.
99US-0158663P.
99US-00403296.
99US-00423844.
99WO-US028313.
                                                                                                                                                                                                        99US-0145698P.
99US-0146222P.
99US-0149396P.
99US-00380137.
99US-00380138.
                                                          99US-00267213.
99US-0123957P.
99US-00284291.
99WO-US012252.
                                                                                                                                               99US-0141037P.
99US-0143048P.
99US-0144758P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028301.
                                             99US-00254460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antiparkinsonian
03-MAR-1999;
08-MAR-1999;
09-MAR-1999;
12-MAR-1999;
12-MAR-1999;
02-JUN-1999;
23-JUN-1999;
20-JUL-1999;
                                                                                                                                                                                                                                                                                         25-AUG-1999;
25-AUG-1999;
15-SEP-1999;
16-SEP-1999;
18-OCT-1999;
12-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                          26-JUL-1999;
28-JUL-1999;
17-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                         25-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD08209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADD08209
```

à

δ

US2003068623-A1

```
970S-0049787P.
970S-0062250P.
970S-006211P.
970S-006511P.
970S-006511P.
970S-006511P.
970S-006511P.
970S-006511P.
970S-006511P.
970S-006511P.
970S-006511P.
970S-006512P.
970S-008759P.
970S-008759P.
970S-008759P.
970S-008725P.
970S-008725P.
970S-008725P.
970S-008725P.
970S-008725P.
970S-008725P.
970S-008725P.
970S-008725P.
970S-0088728P.
970S-0089738P.
14-NOV-2001; 2001US-00993469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0090355P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0090431P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0090435P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0090444P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0090445P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0090472P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0090557P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0090535P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0090540P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38US-0090542P
                                                                                                                                                                                        02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
                                                                                                                                                                                                                              04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                            04-JUN-1998;
05-JUN-1998;
05-JUN-1998;
                                                                                                                                                                                                                                                                                                   04-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                      05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                            0-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - HOLD-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                            0-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                            0-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0-JUN-1
```

us-09-989-293a-377.jun1.rag

```
98US-0090696P
98US-0090686P
98US-0090862P
98US-0091360P
98US-009154P
98US-0091519P
98US-0091526P
98US-0091628P
98US-0091628P
98US-0091638P
98US-0091638P
                                                                                                                                                                                                                                                   98US-0096012P

98US-0096144P

98US-0096139P

98US-009673P

98US-0096773P

98US-0096773P

98US-0096773P

98US-009691P

98US-009691P

98US-009691P

98US-009691P

98US-009691P

98US-009691P

98US-009691P

98US-009691P

98US-009795P

98US-009795P
                                                                                                                                      98US-0091982F.
98US-0092182F.
98US-0092472F.
                                                                                                                                                             98US-0093339P.
98US-0094651P.
98US-0095282P.
98US-0095285P.
                                                                                                                                                                                                                           98US-0095325P.
98US-0095916P.
98US-0095929P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0100858P.
98WO-US019437.
98WO-US021141.
        98US-0090690P
                                                                                                                                                                                                    98US-0095302P.
                                                                                                                                                                                                                    98US-0095321P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0113296P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US000106
99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0123957P
25-JUN-1998,
25-JUN-1998,
25-JUN-1998,
25-JUN-1998,
26-JUN-1998,
26-JUN-1998,
01-JUL-1998,
02-JUL-1998,
02-JUL-1998,
02-JUL-1998,
02-JUL-1998,
02-JUL-1998,
                                                                                                                            07-JUL-1998;
07-JUL-1998;
09-JUL-1998;
10-JUL-1998;
                                                                                                                                                             20-JUL-1998;
30-JUL-1998;
04-AUG-1998;
                                                                                                                                                                                   04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                   04-AUG-1998;
04-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                           10-AUG-1998;
10-AUG-1998;
11-AUG-1998;
11-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                 20-AUG-1998;
24-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                           12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                         17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-AUG-1998;
31-AUG-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                    17-AUG-1998;
                                                                                                                                                                                                                                                                                                           17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                          18-AUG-1998;
18-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-1998;
19-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAR-1999;
12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                          17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                          18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                        26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-AUG-1998
26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-SEP-1998
07-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1998
```

```
09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; adreamal; lung; coloni, breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; PEA uptake modulator; cell proliferation; periority cell; adipocyte cell; periority cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLIVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                        Length 90
                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel human secreted and transmembrane protein PR01159.
                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
100.0%; Score 462; DB 7;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADD03299 standard; protein; 90 AA.
 99WO-US012252.
99US-0141037P.
99US-0143048P.
99US-0145698P.
99US-0146222P.
99US-0146222P.
99WO-US021090.
                                                                                                                                                                                                                                                                                     2000WO-US004914.
2000WO-US005004.
2000WO-US005811.
2000WO-US006319.
2000WO-US006884.
                                                                                                                              99US-0158663P
99WO-US028313
                                                                                                                                                                                                                 2000WO-US000219
                                                                                                                                                                                                                                             2000WO-US003565
                                                                                                                                                          99WO-US028301
99WO-US028634
                                                                                                                                                                                        99WO-US030095
                                                                                                                                                                                                                                2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-APR-2002; 2002US-00131817.
                                                                                                                                                                                                                                                                       2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                       2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003092104-A1.
                                                                                                                                                                                                                             06-JAN-2000; 2
11-FEB-2000; 2
18-FEB-2000; 2
22-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
02-7UN-1999;
23-7UN-1999;
20-7UL-1999;
26-7UL-1999;
26-7UL-1999;
17-AUG-1999;
115-SEP-1999;
16-SEP-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                              02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-MAY-2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD03299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 139
ADD03299
  g
```

97WO-US005230.

31-MAR-1997;

```
98WO-US014552
98WO-US017888
                 98WO-US018824
98WO-US019093
                                         98WO-US019330
98WO-US019437
                                                                            98WO-US025108
                                                                                              99WO-US005190
                                                                                                    99WO-US008615
                                                                                                                                             99WO-US021547
                                                                                                                                                  99WO-US023089.
                             98WO-US019094
98WO-US019177
                                                     98WO-US021141
                                                                      98WO-US024855
                                                                                   99WO-US000106
                                                                                                                99WO-US012252
                                                                                                                      99WO-US020111
                                                                                                                                  99WO-US020944
                                                                                                                                      99WO-US021090
                                                                                                                                                                                                              99WO-US030911
99WO-US030999
                                                                                                                                                                                                                          99WO-US030720
                                                                                                                                                                                                                                                                              2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US006520,
2001WO-US006666
                                                                                                                                                                                                  99WO-US028565
                                                                                                                                                                                                        99WO-US030095
                                                                                                                                                                                                                                           2000WO-US000219
                                                                                                                                                                                                                                                                                    :000WO-US004914
                                                                                                                                                                                                                                                                                                                 2000WO-US006319
                                                                                                                                                                                                                                                                                                                                         2000WO-US008439
                                                                                                                                                                                                                                                 000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                 2000WO-US015264
                10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
07-OCT-1998;
29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                        30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001;
                                                                29-OCT-1998
20-NOV-1998
                                                                                                                                                                                                                                           05-JAN-2000;
                                                                                             0-MAR-1999
                                                                                                                                                               NOV-1999
                                                                                                                                                                    30-NOV-1999
                                                                                                                                                                                                                                                                                    24-FEB-2000;
                                                                                                                                                                                                                                                                                                01-MAR-2000;
                                                                                                                                                                                                                                                                                         24-FEB-2000
                                                                                                                                                                                                                                                                                                                       15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                02-JUN-2000
                                                                                                                                                        :- NON-6
```

```
2001US-00802706.
2001US-00808689.
2001US-00816744.
                            2001US-00860216.
2001US-00866028.
2001US-00866034.
              2001US-00828366.
2001US-00854208.
2001US-00854280.
                                            2001WO-US017092
2001US-00872035
                                                     2001WO-US017800
2001US-00874503
                                                               2001US-00882636
                                                                         2001WO-US019692
                                                                              2001US-00887879
                                                                                       2001WO-US021066
                                                                                             2001WO-US021735
                                                                                                  2001US-00908827
                                                                                                                 2001US-00931836
                                                                                                                    19-DEC-2001; 2001US-00028072
                                          25-MAY-2001; 2
01-JUN-2001; 2
01-JUN-2001; 2
                       10-MAY-2001;
18-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                         05-JUN-2001;
14-JUN-2001;
                                                                   19-JUN-2001;
20-JUN-2001;
                                                                                  22-JUN-2001;
29-JUN-2001;
                                                                                            09-JUL-2001;
```

(GETH) GENENTECH INC.

Gao Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, De Gerritsen ME, Goddard A, Smith V, Stewart TA,

WPI; 2003-801169/75. N-PSDB; ADD03298.

or New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 638pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also this enset in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful creagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of or sending nuscle cells, for modulating the uptake of colluose or FRA (free fatty acid) by skeletal muscle cells, for stimulating proliferation of or gene expression in periorte cells, for stimulating proliferation of inner ear utricular supporting cells or treating various bone and/or cartilage encourage injuries and arthritis. PRO polypeptides which stimulate the release of treating various are useful for treating propries of proteceglycans from cartilage are useful for treating various pone and propries or proteceglycans from cartilage are useful for treating various pane and propries or proteceglycans from cartilage are useful for treating various pane and propries or proteceglycans from cartilage are useful for release of proteceglycans from cartilage are useful for releasing of or protecegly and arthritis are defermed to be a protection or protection or protection or protecti problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in

```
RESULT 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADC82034
       à
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                              Human; secreted and transmembrane protein; PRO; Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; PRA uptake modulator; cell proliferation stimulator; cell differentiation stimulator; cell differentiation thinbitor; cytokine release stimulator; tumour; lung tumour; colon tumour; breast tumour; prostett tumour; rectal tumour; cervical tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention describes 30s nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the release of TNF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the release of proteoglycans from cartilage, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the release of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
                                                                                                                           9
                                                                                                                                                     9
                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                       1 MIFFLSLILLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Deforge L, Desnoyers L, Filvaroff E, G. A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;
electronic format from USPIO at sequata.uspto.gov/sequence.html
                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New PRO nucleic acid, useful for manufacturing a medicament for
                                                               Length 90;
                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                      Novel human secreted and transmembrane protein PRO1159.
                                                        100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                               90
                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                                                                                                                                ADC90291 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-APR-2002; 2002US-00125923.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                       90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beresini M, Do
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-786939/74.
                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ADC90290.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003087348-A1.
                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                         01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baker KP,
                                                                                                                                                                                                                                                   RESULT 140
                                                                                      Matches
                                                                                                                                                                                                                                                                 ADC90291
SXS
                                                                                                                 à
                                                                                                                                               g
                                                                                                                                                                            à
```

```
the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDNA nucleotide sequences or antisence probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding and gene mapping, in generation of antisence RNA and DNA, in the preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful in agenetically useful in separation of chromosome identification, as chromosome marker, and for generating probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g. detecting its expression in specific cells, tissues or serum, and for affinity putification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino alloward and animals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human, PRO; pancreatic beta-cell precursor cell; pancreatic beta-cell; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; antidiabetic; antianaemic; cytostatic; cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MTFFLSLLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MIFFISLILLINGEAIWRSNSGSNILENGYFLSRNKENHSÓPTÓSSLEDSVIPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADC82034 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0049787P.
97US-0062250P.
97US-0069.
97US-0065311P.
97US-0066770P.
98US-0075945P.
98US-0075945P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0084600P.
98US-0087106P.
98US-0087607P.
98US-0087609P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-NOV-2001; 2001US-00992521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0087759P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JS2003083461-A1.
                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                         polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-JUN-1998;
02-JUN-1998;
02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-NOV-1997,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-MAR-1998;
28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-OCT-1997
05-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADC82034;
```

3135 - 0.0880.21P 3135 - 0.0880.22P 3135 - 0.0880.23P 3135 - 0.0880.23P	8015-00888587898185-0088851898185-0088851898185-0088851898185-00889185-008991898185-0089991898185-0089991898185-0089994898185-0089994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-009994898185-0099994898185-0099994898185-0099994898185-0099999898185-00999988185-00999988185-00999988185-009999888185-0099999888185-0099998888888888888888888888888888888	98US-0090349P 98US-0090355P 98US-0090431P 98US-0090443P 98US-0090442P 98US-0090442P 98US-0090442P 98US-0090542P 98US-0090542P 98US-0090542P 98US-0090542P 98US-0090678P 98US-0090678P 98US-0090678P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-009069P 98US-0091544P 98US-0091544P 98US-0091544P 98US-0091633P 98US-0091633P 98US-0091634P 98US-0091634P 98US-0091634P 98US-0091634P 98US-0091634P 98US-0091634P
100 - 100 -	100 1998 100 1998 100 1998 100 1998 100 1998 100 1998 100 1998 100 1998 100 1998 100 1998 100 1998	23 - UW - 1998; 24 - UW - 1998; 25 - UW - 1998; 25 - UW - 1998; 25 - UW - 1998; 26 - UW - 1998; 26 - UW - 1998; 27 - UW - 1998; 28 - UW - 1998; 29 - UW - 1998; 20 - UW - 1998; 20 - UW - 1998; 21 - UW - 1998; 22 - UW - 1998; 23 - UW - 1998; 24 - UW - 1998; 25 - UW - 1998; 26 - UW - 1998; 27 - UW - 1998; 28 - UW - 1998; 29 - UW - 1998; 20 - UW - 1998; 20 - UW - 1998; 21 - UW - 1998; 22 - UW - 1998; 23 - UW - 1998; 24 - UW - 1998; 25 - UW - 1998; 26 - UW - 1998; 27 - UW - 1998; 28 - UW - 1998; 29 - UW - 1998; 20 - UW - 1998; 21 - UW - 1998; 22 - UW - 1998; 23 - UW - 1998; 24 - UW - 1998; 25 - UW - 1998; 26 - UW - 1998; 27 - UW - 1998; 28 - UW - 1998; 29 - UW - 1998; 20 - UW - 1998; 20 - UW - 1998; 21 - UW - 1998; 22 - UW - 1998; 23 - UW - 1998; 24 - UW - 1998; 25 - UW - 1998; 26 - UW - 1998; 27 - UW - 1998; 28 - UW - 1998; 29 - UW - 1998; 20 - UW - 1998; 20 - UW - 1998; 21 - UW - 1998; 22 - UW - 1998; 23 - UW - 1998; 24 - UW - 1998; 25 - UW - 1998; 26 - UW - 1998; 27 - UW - 1998; 28 - UW - 1998; 29 - UW - 1998; 20 - U
% % % % % % % % % % % % % % % % % % %		** ** * * * * * * * * * * * * * * * *

USC. 0.092472P 0105-0.093339P 0105-0.094651P 0105-0.095282P 0105-0.095282P 0105-0.095301P 0105-0.095310P	98US-0096757P. 98US-0096757P. 98US-0096757P. 98US-0096773P. 98US-0096773P. 98US-009683P. 98US-009689P. 98US-009689P. 98US-009689P. 98US-009689P. 98US-00969P. 98US-00969P. 98US-009797P. 98US-0109852P. 98US-0144758P. 99US-0144758P. 99US-0144758P. 99US-01805219.	9WO-USO3001 9WO-USO3091 0WO-USO0021 0WO-USO00356
10 - UUL - 1998 20 - UUL - 1998 30 - UUL - 1998 04 - AUG - 1998 04 - AUG - 1998 04 - AUG - 1998 04 - AUG - 1998 10 - AUG - 1998 10 - AUG - 1998 11 - AUG - 1998 11 - AUG - 1998 11 - AUG - 1998	PR 17-A0G-1998 PR 18-A0G-1998 PR 18-A0G-1998 PR 18-A0G-1998 PR 26-A0G-1998 PR 26-A0G-1999 PR 26-	16-DEC-19 20-DEC-19 05-JAN-20 06-JAN-20 11-FEB-20 18-FEB-20

N

Wed Jun

```
Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer, adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G;
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADC69710 standard; protein; 90 AA.
                                                                                                           2000WO-US006319.
2000WO-US006884.
2000WO-US007377.
2000WO-US008439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-MAR-2000; 2000US-0187202P.
30-MAY-2000; 2000WO-US014941.
01-DEC-2000; 2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                  2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-MAY-2002; 2002US-00152375.
                                                                                                                                                                                                                                                            2000WO-US013705
2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                    2000US-0213637P
                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US020710
                                                                                      2000WO-US005841
                                                                                                                                                                                                                                                                                                                         2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JS2003194770-A1.
                                                                                                        15-MAR-2000; 2
20-MAR-2000; 2
20-MAR-2000; 2
15-MAY-2000; 2
17-MAY-2000; 2
22-MAY-2000; 2
23-MAY-2000; 2
20-MAY-2000; 2
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                    23-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADC69710;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADC69710
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEX TENENCE SERVICE SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

WPI; 2003-844453/78. N-PSDB; ADC69709.

0; 9 9

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymuleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, optimization or differentiation of chondcocyte cells and a method for proliferation or differentiation of chondcocyte cells and a method for proliferation probes, in chromosome and gene mapping, in general, lung, oplymucleotides are useful in molecular biology, including uses as a streams fax and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing consistents of the polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for trimulating and inhibiting proliferation of underly most cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating effection of or gene expression in pericyte cells, for stimulating effection of or gene expression in pericyte cells, for stimulating and condition as sports injuries and remunated arthritis and rhemman cartilage are useful for treating sports injuries and structus or arthridage are useful for treating sports related joint problems, arthridia are also useful for treating sports-related joint problems, arthorian cartilage are useful for treating sports-related conditions which may benefit from enhanced local immune system cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
                     New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the USPTO website at segdata.uspto.gov.
                                                                                                                                                Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADC48599 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                    tumors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADC48599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
```

endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003194773-A1.

16-OCT-2003.

21-MAY-2002; 2002US-00152391.

2000WO-US014941. 2000WO-US032678. 99US-0170262P 19-DEC-2001; 2001US-00028072. 09-DEC-1999; 30-MAY-2000; 2 01-DEC-2000; 2

(GETH) GENENTECH INC.

Gao W; Filvaroff E, Gao Baker KP, Beresini M, Deforge L, Desnoyers L, Filvar Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, She Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI,

WPI; 2003-844455/78. N-PSDB; ADC48598.

New secreted and transmembrane PRO nucleic acids and polypeptides, usefu for detecting a tumor, stimulating the release of tumor necrosis factor alpha and stimulating the proliferation of endothelial cells.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factoralpha (TWP-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, coldiferation of differentiation of chondrocyte cells and a method for coldiferation probes, in chromosome and spee mammal (e.g. adrenal, lung, cold), breast, prostate, retal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and spee mapping, in generating antibection probes, in chromosome and spee mapping, in generating either transgenic animals or knock-out animals which are cuseful in the development and screening of knock-out animals which are used in preparing pRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating differentiation of adipocyte cells, for stimulating of freezation of or gene expression in pericyte cells, for stimulating coldiferation of or gene expression in pericyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating coldiferation of inner ear utricular supporting cells or treating are useful for treating sports injuries and articular cartilage defects, oscenator and contraction and for treating articular cartilage defects, oscenator sends and contitions which simulation and contitions which simulation and contitions which may benefit from enhanced local immune system cell infilteration. This sequence representes a human PRO polypeptide of the infile parent is also available in electric former from contitions and continions of the infile parent is also available in the proprise infile and and parent data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html sequence

Sequence 90 AA;

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for cetecting the presence of a tumour in a mammall (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hyridisation probes, in chromosome and gene mapping in generating antisense RNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or

Claim 12; Fig 474; 637pp; English.

°; Gaps . ch 100.0%; Score 462; DB 7; Length 90; 1 Similarity 100.0%; Pred. No. 9.8e-49; 90; Conservative 0; Mismatches 0; Indels Best Local Similarity Matches 90; Conserval Query Match

```
useful
                                                                                                                                                                                                                                                      Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
9
                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
               1 MTFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New secreted and transmembrane PRO nucleic acids and polypeptides, us for detecting a tumor, stimulating the release of proteoglycans from cartilage and inhibiting the differentiation of adipocyte cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sherwood S;
II, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Beresini M, Deforge L, Desnoyers L, Filvard
ME, Goddard A, Gočowski PJ, Gurney AL, Shei
Stewart TA, Tumas D, Watanabe CK, Wood WI,
                                                   90
                                                                           90
                                                                          61 GKGIVKGKNLDSRGLILGAEAWGRGVKKNT
                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                 immune system cell infiltration.
                                                                                                                                               ADD10128 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-MAY-2002; 2002US-00157785
                                                                                                                                                                                                                               Human PRO polypeptide #237.
                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003-852596/79.
                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003194776-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; ADD10127
                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen ME,
                                                                                                                                                                                                    01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP,
                                                                                                                                                                           ADD10128;
                                                   61
                                                                                                                    RESULT 144
                                                                                                                                     ADD10128
                                                                                                                                                              d
                                                   ð
                                                                           g
```

us-09-989-293a-377.junl.rag

```
1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEC-1999;
                                                                                                                                                                            04-JUN-1998
                                                                                                                                                                                          04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1-707-1
17-707-1
                                                                                                                                                                                                                                                                                                                                                                                                                                        11-JUN-1
                                                                                                                                                                                                                                                                    L-MDD-
                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38-MAR-
                                                                                                                                                                                                                                                                                                                                                                                                           -NDD-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -NUD-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -YOU-
                                                                                                                                                                                                                                       04-JUN-
                                                                                                                                                                                                                                                                                                                  -NDD-60
                                                                                                                                                                                                                                                                                                                                               -NDC-01
                                                                                                                                                                                                                                                                                                                                                                                                                           11-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-
       of human microvascular endothelial cells, for modulating proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating proliferation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence date for this parent is also available in electronic format from the property of the condition which the condition which the condition is also available in electronic format from the condition of the condition where the conditions were conditions and conditions which the condition is also available in electronic format from the condition of the condition which the condition is also available in electronic format from the condition is also available in electronic format from the condition is also available in electronic format from the condition in the condition is also available of the invention.
                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neonatal heart hypertrophy, anglogenesis, vascular endothelial growth factor; VEGF-stimmlated proliferation; endothelial growth factor; VEGF-stimmlated proliferation; endothelial cell; T-lymphocyte proliferation, retinal neuron; rod photoreceptor cell; c-fos induction, adipocyte; chondrocyte differentiation; cancer; tumour; colon cancer; lung cancer; breast cancer; parcreatic beta-cell precursor cell; pancreatic beta-cell; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; neurodegenerative disorder; Parkinson's disease; Alzheimer's disease; gene therapy; chromosome mapping; gene mapping; transgenic animal; knock-out animal; antidiabetic; antianaemic; cytostatic; nootropic; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 462; DB 7; Length 90; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; secreted protein; transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                     61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                    USPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADD07676 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  970S-006220P-
970S-0062186P-
970S-0065186P-
970S-0065111P-
970S-0066770P-
980S-0075945P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-NOV-2001; 2001US-00989735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0049787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antiparkinsonian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2002193299-A1.
                                                                                                                                                                                                                                                                                  Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-DEC-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADD07676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

```
98US-0088025P.
98US-0088026P.
98US-0088029P.
98US-0088030P.
98US-0088033P.
                                                                                                                                                                                                                                                                                                                                            98US-0088858P.
98US-0088861P.
98US-0088876P.
                                                                                                                                                                                                                                                                                                                                                                                  98US-0089105P
98US-0089440P
98US-0089512P
98US-0089532P
98US-0089538P.
                                       98US-0087609P.
98US-0087759P.
98US-0087827P.
98US-0088021P.
                                                                                                                                                                                           98US-0088167P.
98US-0088202P.
98US-0088212P.
                                                                                                                                                                                                                                 98US-0088217P.
98US-0088655P.
98US-0088734P.
                                                                                                                                                                                                                                                                                         98US-0088742P.
98US-0088810P.
                                                                                                                                                                                                                                                                                                                               98US-0088826P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0089598P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US019330
              98US-0087106P
98US-0087607P
                                                                                                                                                                                                                                                                         98US-0088738P
                                                                                                                                                                                                                                                                                                                   98US-00BBB24P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0089599P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0089600P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0089653P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0089801P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0089907P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
07-MAY-1998;
28-MAY-1998;
02-JUN-1998;
02-JUN-1998;
02-JUN-1998;
04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
```

9

2000WO-US015264. 2000WO-US020710. 2000WO-US022031.

```
The invention relates to human secreted and transmembrane PRO polypeptides and the polynucleotides encoding them. The PRO polypeptides or polypectides are useful as pharmacenticals, diagnostics, biosensors or bioreactors. They are useful for stimulating hypertrophy of neonatal heart, promoting angiogenesis, inhibiting vascular endothelial growth factor (VEGF) etimulated proliferation of endothelial calls, modulating glucose or FFA upptake by adipocytes, the proliferation of stimulated T-lymphocytes, enhancing the survival or containing pancreatic beta-cell precursor differentiation of chondrocytes, or inducing pancreatic beta-cell precursor differentiation into mature of pancreatic beta-cell precursor differentiation into mature containing undesired endothelial cell growth, e.g., inhibiting tumour growth. The sequences are also useful for treating and there is a sequences are also useful for treating malitated hammalian cannot disorders (e.g., various thalassaemias), cystic cancers such as those of the colon, lung and breast. FRO polypeptides or antibodies to PRO polyceptides may be used to detect a PRO polypeptide in electrophoresis purposes; for tissue typing; to prepare a medicament for treating a condition responsive to the polypeptide or antibody, such as neurodegenerative disorders (e.g., Parkinson's disease or Alzheimer's disease); and in various diagnostic assays. The PRO polymucleotides can be used as hybridisation probes, in chromosome and gene mapping, in the generating antiense RNA and DNA, and in gene therapy. The polymucleotide may also be used in preparing PRO polypeptides by recombinant techniques, and in generating either transgening and in generating either transgening encoderation and in generating either transgening encoderations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful reagents. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Isolated PRO polypeptides e.g., PRO826, PRO1068, PRO1184, PRO1346 and PRO1375, which stimulate proliferation of stimulated T-lymphocytes and are thus therapeutically useful e.g. for enhancing immune response.
                                                                                                                                                                                                                                                                                                                                                                                                Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton
Berrara M, Fong S, Gerber H, Gerritsen ME, Goddard A,
Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J,
Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; SEQ ID NO 377; 659pp; English.
                                                                        23-AUG-2000; 2000MO-US023522.
24-AUG-2000; 2000MO-US03328.
08-NOV-2000; 2000MO-US03052.
01-DEC-2000; 2000MO-US032678.
28-FEB-2001; 2001MO-US006520.
01-JUN-2001; 2001MO-US017800.
                                                                                                                                                                                                                      20-JUN-2001; 2001WO-US019692.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
                                                                                                                                                                                                                                                                                                28-AUG-2001; 2001US-00941992
                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-657230/62.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ADD07675.
02-JUN-2000;
28-JUL-2000;
11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Roy MA,
Zhang Z;
```

Godowski PJ; Paoni NF; Wood WI;

Eaton

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNP-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as plybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are
                                                                                                                                                                                                                                                                                                                                                             Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FPA uptake modulator; cell proliferation; cell differentiation; RFA uptake modulator; cell proliferation; pericyte cell; inner ear utricular supporting cell; lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; massociated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beresini M, Deforge L, Desnoyers L, Filvaroff E, G
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New PRO nucleic acid, useful for manufacturing a medicament for
                                                                                                                                                                                                                                                                                                                           Novel human secreted and transmembrane protein PRO1159.
                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                             ADD04703 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUN-1999; 99WO-US012252.
25-AUG-1999; 99US-00380137.
30-MAX-2000; 2000WO-US008439.
30-MAX-2000; 2000WO-US014941.
01-DEC-2000; 2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-APR-2002; 2002US-00127827.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-801139/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ADD04702.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003087354-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen ME,
Smith V, Stew
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-AUG-1998;
                                                                                                                                                                                                                                                                                01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-MAY-2003
                                                                                                                                                                                                                                      ADD04703;
                                                                                                                                                                                                                 8
                                                                                 g
```

Query Match

100.0%; Score 462; DB 7; Length 90;

Best Local Similarity 100.0%; Pred. No. 9.8e-49;

Matches 90; Conservative 0; Mismatches 0; Indels Sequence 90 AA;

1 MTFFLSLLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60

```
98US-0088029P
98US-0088030P
98US-0088326P
98US-0088167P
98US-0088117P
98US-0088117P
98US-0088512P
98US-0088613P
98US-0088614P
98US-0088734P
98US-0088734P
                                    98US-0088021P.
98US-0088025P.
98US-0088026P.
98US-0088028P.
                                                                                                                                                                                                                                                        98US-0088826P.
98US-0088858P.
98US-0088861P.
                                                                                                                                                                                                                                                                                                                                                                                                   98US-0089660P
98US-0089653P
98US-0089801P
98US-0089907P
                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0089947P.
98US-0089948P.
98US-0090246P.
98US-0090252P.
98US-0090254P.
98US-0090349P.
98US-009043P.
98US-0090444P.
98US-0090444P.
98US-0090444P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0090540P.
98US-0090542P.
98US-0090557P.
98US-0090676P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0090862P.
98US-0090863P.
98US-0091360P.
                                                                                                                                                                                                                                                                                            98US-0088876P
                                                                                                                                                                                                                                                                                                                              98US-0089512P.
                                                                                                                                                                                                                                                                                                       98US-0089105P
                                                                                                                                                                                                                                                                                                                   98US-0089440P
                                                                                                                                                                                                                                                                                                                                                    98US-0089532P
                                                                                                                                                                                                                                                                                                                                                                             98US-0089598P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0090690P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0090695P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0091544P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0091519P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0091628P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0091646P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0091978P
                                                                                               04-JUN-1998;
                                                             04-JUN-1998
                                                                                                                                                                       -JUN-1998;
                                                                                                                                                                                                                                         , 8661-NUL-01
                                                                                                                                  05-JUN-1998
                                                                                                                                               05-JUN-1998
                                                                                                                                                          05-JUN-1998
                                                                                                                                                                                             10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                   17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUN-1998;
                                                                                                                                                                                                                                                                                                                 16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                 17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                  8-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-JUN-1998
             useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FFA (free fatty acid) by skeletal muscle cells, for cells, for stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for T-lymphocyte cells, for inducing endothelial cell tube formation and for T-lymphocyte cells, for inducing endothelial cell tube formation and for T-lymphocyte cells, for inducing endothelial cell tube formation and for T-lymphocyte scalls, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of corticular cartilage are useful for treating sports-related joint problems, articular cartilage are useful for treating various corthritis. PRO polypeptides are also useful for treating various conditions which may benefit from enhanced local immune system cell conditions which may benefit from enhanced local immune system cell conditions which may benefit from enhanced local immune system cell conditions. Note: The sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPPO at sequence.
                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCBAIWRSNSGSNTLBNGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                  Human; PRO; pancreatic beta-cell precursor cell; pancreatic beta-cell; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; cystic renal dysplasia; polycystic kidney diseae; renal tumour; antidiabetic; antianaemic; cytostatic; cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                    100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                        GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC82567 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0049787P.
97WG-0062250P.
97US-0065186P.
97US-006511P.
97US-0065710P.
98US-0075945P.
98US-0083122P.
98US-0083122P.
98US-008106P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-2001; 2001US-00997440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                              Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003059833-A1.
                                                                                                                                                                                                                                                            Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC82567;
                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADC82567
       8
```

```
Beresini M,
                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                            US2003092103-A1
                             24-FEB-2000;
02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
20-MAR-2000;
                                                              30-MAR-2000;
15-MAY-2000;
17-MAY-2000;
  11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
                                                                                                                      11-AUG-2000;
23-AUG-2000;
                                                                                                  02-JUN-2000;
                                                                                            30-MAY-2000;
                                                                                                                28-JUL-2000;
                                                                                                                                            Ma.
Local bin
90;
                                                                                    22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                          15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baker KP,
                                                                                                                                                                                                                                                              ADC80659;
                                                                                                                                           Query Match
                                                                                                                                                                                                  61
                                                                                                                                                                                                                                   RESULT 148
                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                          ADC80659
    원
                                                                                                                                                                                                             셤
                                                                                                                                                                                                ö
                                                                                                                                                                      ਨੇ
       98US-0092182P

98US-0092482P

98US-0095282P

98US-0095302P

98US-0095318P

98US-0095321P

98US-0095321P

98US-0095321P

98US-0095321P

98US-0095321P

98US-0096321P

98US-0096321P

98US-009632P

98US-0096392P

98US-0097928E

98US-0097928E

98US-0097938E

98US-0097938E

98US-0097938E

98US-0097938E

98US-0097938E

98US-009794E

98US-009794E

98US-009794E

98US-009794E
                                                                                                                                                                                                                                                                                                                              98WO-US019330.
98US-0100858P.
98WO-US019437.
98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                          98WO-US025108.
98US-0113296P.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                              99WO-US030911.
99WO-US005028.
99US-0123957P.
                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US01255.
99WS-0141037P.
99US-0144758P.
99US-0144758P.
99US-0145698P.
  98US-0091982P
                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US021090.
99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-DEC-1999; 99WO-US030095.
05-JAN-2000; 2000WO-US000219.
06-JAN-2000; 2000WO-US000376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0158663P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028313
07-JUL-1998,
09-JUL-1998,
10-JUL-1998,
20-JUL-1998,
30-JUL-1998,
04-AUG-1998,
04-AUG-1998,
04-AUG-1998,
04-AUG-1998,
04-AUG-1998,
10-AUG-1998,
10-AUG-1998,
11-AUG-1998,
11-AUG-1998,
11-AUG-1998,
11-AUG-1998,
                                                                                                                   12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                              17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                   17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
18-AUG-1998;
                                                                                                                                                                                                                                                                                            26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
31-AUG-1998;
16-SEP-1998;
                                                                                                                                                                                                     18-AUG-1998
18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                        JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                   02-NUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                           -NUL-1999
```

```
Human; secreted and transmembrane protein; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; cancer; adrean1; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; microvascular endothelial cell; prostation; RFA uptake modulator; cell proliferation; periorte cell; dippocyte cell; periorte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; esports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; maemoglobin-associated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLILLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 7; Length 90; larity 100.0%; Pred. No. 9.8e-49; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADC80659 standard; protein; 90 AA
2000WO-US004914.
2000WO-US005004.
2000WO-US005841.
2000WO-US006319.
2000WO-US006884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-DEC-1998; 98US-0113511P.
01-DEC-1999; 99WC-US026634.
22-FEB-2000; 2000WO-US004414.
01-DEC-2000; 2000WO-US03578.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                 2000WO-US013358.
2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US020710.
2000WO-US022031.
                                                                                                                                                                                     2000WO-US008439
                                                                                                                                                                                                                                                                           2000WO-US014042
                                                                                                                                                                                                                                                                                                              2000WO-US014941
                                                                                                                                                                                                                                                                                                                                    2000WO-US015264
2000US-0213637P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-APR-2002; 2002US-00131815.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
```

×

. Gao

Filvaroff E,

Desnoyers L,

Deforge L,

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the relates of tumour necrosis polypeptide (secreted and a method for polypeptide) from human blood, a method for etimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating PRO polypeptides by recombinant techniques and in generating eliber transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful antibodies, such as tumours, for stimulating or hypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of adioporyte cells, for stimulating proliferation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of problems, articular cartilage are useful for treating sports-related joint arthritis. PRO polypeptides are also obstructed immune system cell carthritis. PRO polypeptides are also useful for treating sports related joint arthritis and conditions which may benefit from enhanced local immune system cell infligration. This sequence represents a human pro polypeptides are also oblypeptide are also oblypeptides are a
                                                                                                                                                                                                                                                                                                             The invention relates to isolated human PRO polypeptides (secreted and
                                                                                                                                                              or
                                                                                                                                                   New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.
     Sherwood S;
II, Zhang Z;
Godowski PJ, Gurney AL, She
as D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                               Claim 12; Fig 474; 637pp; English.
                             Tumas D,
  Goddard A,
                          Stewart TA,
                                                                              2003-801168/75
                                                                           WPI; 2003-801168/
N-PSDB; ADC80658.
  Gerritsen ME,
                        Smith V,
```

```
ö
                                                                                                                                  9
                                                                                                                         1 MTFFLSLLLLUVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                              1 MIFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                    Gaps
                                                                  ·
0
                                   Length 90;
                                                                  0; Indels
                             100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                               0; Mismatches
                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                               90; Conservative
                                               Local Similarity
Sequence 90 AA;
                              Query Match
                                                             Matches
                                                                                               à
                                                                                                                             g
                                                                                                                                                             à
```

```
Human, PRO; secreted polypeptide, transmembrane polypeptide, tumour necrosis factor-alpha, TNF-alpha; chondrocyte cell; tumour;
                                                              Human PRO polypeptide #237.
```

(first entry)

01-JAN-2004 ADD11166;

ADD11166 standard; protein; 90 AA.

RESULT 149

ADD11166

osteoarthritis; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; glucose; FFA; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan, articular cartilage defect; osteoarthrirheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

JS2003194774-A1.

16-0CT-2003

21-MAY-2002; 2002US-00152399.

03-MAR-2000; 2000US-0187202P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Goddard A, Beresini M, Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-852594/79. N-PSDB; ADD11165 New secreted and transmembrane PRO nucleic acids and polypeptides, useful for detecting a tumor, stimulating the proliferation or differentiation of chondrocyte cells and stimulating the release of tumor necrosis factor alpha.

Claim 12; SEQ ID NO 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the release of tumour necrosis of proliferation or differentiation of chondrocyce cells and a method for proliferation or differentiation of chondrocyce cells and a method for conditions are useful in thromosome and spene mapping, in general, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating can increase RNA and bin gene therapy. The polymucleotides may also a strissness RNA and bropoptides by recombinant techniques and in the development and screening or knock-out animals which are useful in the development and screening or knock-out animals which are useful in the development and screening or knock-out animals which are useful in the development as tumours, for stimulating the uprake of antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endochelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for midlating the uptake of stimulating differation of sinner ear utricular supporting cells, for stimulating collecation of sinner ear utricular supporting cells, for stimulating and cartilities and an analyze cells, for inducing endothalial cell tube formation and for treating cells, for inducing endothalial cell tube formation and cartilage are useful for treating such as sports injuries and articular cartilage are useful for treating sports replaced joint problems. The may benefit from enhanced local immune system cell infilteration. This sequence data for this patent is also available in electronic former sequence data for this paten

Sequence 90 AA;

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNP-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in
                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gao W;
Smith V;
                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ruman; PRO; secreted polypeptide; transmembrane polypeptide; tumour tumour necrosis factor-alpha; TNF-alpha; Chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletel muscle cell; adipocyte cell; perioyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteogylycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New secreted and transmembrane PRO polypeptides and nucleic acids useful for detecting a tumor, stimulating the release of proteoglycans from cartilage and stimulating the proliferation of endothelial cells.
                                                                                                 1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           forge L, Desnoyers L, Filvaroff E, Godowski PJ, Gurney AL, Gurney SL, anabe CK, Wood WI, Zhang Z;
                                                           .:
                     Length 90;
                                                         Indels
100.0%; Score 462; DB 7; 1
100.0%; Pred. No. 9.8e-49;
Mismatches 0;
                                                                                                                                                                              61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                     GRGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Goddard A, Godowski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Deforge L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                               ADC48047 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-DEC-1999; 99US-0170262P.
01-DEC-2000; 2000MO-US032679.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-MAY-2002; 2002US-00152377.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                             01-JAN-2004 (first entry)
                                      Local Similarity 100.
les 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baker nr,
Gerritsen ME, Godgaiu
Tr, TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2003-844454/78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ADC48046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003194771-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                       ADC48047;
                       Query Match
                                                                                                                                                                                                                                                                           RESULT 150
                                                         Matches
                                                                                                                                   셤
                                                                                                                                                                              à
```

```
generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO Polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumcurs, for stimulating and inhibiting proliferation of the muscle cells, for adipocyte cells, for stimulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in perioty cells, for stimulating the proliferation of inner ear unicular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and carthitis. PRO polypeptides which stimulate the release of proteoglycans from cartilage affects, osteoarthritis and rheumatoid arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence data for this patent is also available in electronic format from curvey.

USPTO at sequence also uspeced that a sequence of the invention. Opens The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          meconated heart hypertrophy, angulogenesis, protein, rao, neconated heart hypertrophy, angulogenesis, endothelial cell, T-lymphocyte proliferation, tetinal neuron; rod photoreceptor cell; c-fos induction; adipocyte; colon cancer; bureat cancer; andrecion; adipocyte; colon cancer; lung cancer; breat cancer; paracreatic beta-cell precursor cell; paracreatic beta-cell precursor cell; protecatic beta-cell precursor cell; protecatic beta-cell; thalassaema; endothelial cell growth, cancer; cystic renal dysplasia; polycystic kidney disease; renal thmour; neurodegenerative disorder; Parkinson's disease; renal thmour; neurodegenerative disorder; chromosome mapping; gene mapping; renal chromosome mapping; chromosome cancer; cystocic therapy; chromosome cancer; cystocic antianaemic; cytostatic; nootropic; neuroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; secreted protein; transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADD08747 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0049787P.
97US-0062250P.
97WO-US020069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-NOV-2001; 2001US-00990439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 100.
Les 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antidiabetic, ant
antiparkinsonian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003073090-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUN-1997;
17-OCT-1997;
05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD08747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADD08747
         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
```

	228 P. 228 P. 230 P. 267 P. 267 P. 272 P. 276 P. 27		
00-200 00-200	98US-0089028 98US-0089039 98US-0089039 98US-0088039 98US-0088212 98US-0088212 98US-0088212 98US-0088212 98US-0088212 98US-0088216 98US-0088826 98US-0088826 98US-0088826 98US-0088826 98US-0088826 98US-0088826 98US-0088826	302 - 000 303 - 000 304 - 000 305 - 000 306 - 000 307 -	802-000 803-000 803-000 803-000 803-000 803-000 803-000 803-000 803-000 803-000 803-000 803-000 803-000
NOV-1997 NOV-1997 NOV-1997 NOV-1998 NAR-1998 NAR-1998 NAR-1998 NAY-1998 UJN-1998 UJN-1998 UJN-1998		70N-1998	
111 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	X R R R R R R R R R R R R R R R R R R R		3 ค.ศ. ค.ศ. ค.ศ. ค.ศ. ค.ศ. ค.ศ. ค.ศ. ค.ศ

980S-0091544P.
980S-0091478P.
980S-0091626P.
980S-0091628P.
980S-0091628P.
980S-0091633P.
980S-0091632P.
980S-009182P.
980S-009182P.
980S-009182P.
980S-0095318P.
980S-0095318P.
980S-0095318P.
980S-009531P.
980S-00953P.
980S-009531P.
980S-009531P.
980S-009531P.
980S-009531P.
980S-009531P.
980S-009531P.
980S-009731P.
980S-009731P.
980S-009731P.
980S-009731P.
980S-009731P.
980S-009731P.
980S-009731P.
980S-009731P.

02-JUL-1998; 03-JUL-1998; 04-AUG-1998; 04-AUG-1998; 04-AUG-1998; 04-AUG-1998; 11-AUG-1998; 11-AUG-1999; 12-AUG-1999; 13-AUG-1999; 14-AUG-1999; 15-EEP-1999; 17-AUG-1999; 18-AUG-1999; 18

```
(GETH ) GENENTECH INC.
X E X E X E X E X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                            Human, secreted and transmembrane protein, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; tumour; anacer; adrenal; hung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FFA uptake modulator; cell proliferation; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell; those formation; bone disorder; asports injury; proteoglycan; articular cartilage defect; osteoarthritis; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                               1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                             1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                          ö
                                                                                                                                                                                                      Length 90;
                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                              Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                          .
                                                                                                                                                                                                        100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                   GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                     ADC80107 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004342.
2000WO-US030952.
2000WO-US032678.
2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US020111.
                                                                                                                                     02-MAR-2000; 2000WO-US005841.
10-MAR-2000; 2000WO-US006319.
15-MAR-2000; 2000WO-US006884.
20-MAR-2000; 2000WO-US008439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-APR-2002; 2002US-00127833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-009B750P
                                       99WO-US028634.
                                                                                               2000WO-US004341
                   99WO-US028313
                              99WO-US028301
                                                           99WO-US030911
                                                                    2000WO-US000219
                                                                                       2000WO-US003565
                                                                                                          2000WO-US004414
                                                                                                                   2000WO-US004914
                                                                                                                           2000WO-US005004
                                                                                                                                                                                     15-MAY-2000; 2000WO-US013358
                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                Local Similarity
es 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003087358-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-2000; 2
08-NOV-2000; 2
01-DEC-2000; 2
19-DEC-2001; 2
                                                                  05-JAN-2000; 2
06-JAN-2000; 2
11-FEB-2000; 2
18-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                       01-DEC-1999;
16-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                           01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                         ADC80107;
                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                  RESULT 152
                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                             ADC80107
   셤
                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                   ð
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and bnA and in gene therapy. The polynucleotides may also be useful in the development and screening of therapeutically useful research in the development and screening of therapeutically useful creagents. The PRO polypeptides or antibodies are used in preparing a condition, responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of function of adipocyte cells, for stimulating the proliferation of such as utricular supporting cells, for stimulating the proliferation of responsing nin periorte cells, for stimulating the proliferation of such as utricular supporting cells or the province of the provi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09
    Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MTFFLSLLLLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                    A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                       New PRO nucleic acid, useful for manufacturing a medicament for
    Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel human secreted and transmembrane protein PRO1159.
    Desnoyers L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
Deforge L,
A, Godowski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 12; Fig 474; 637pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD06996 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                            diagnosing or treating tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
Beresini M, De
ME, Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                    Stewart TA,
                                                                                                                                                                                      WPI; 2003-801143/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 90; Conserv
                                                                                                                                                                                                                                     N-PSDB; ADC80106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 AA;
                                               Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD06996;
         Baker KP,
                                                                                                    Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADD06996
```

```
beta-cell;
        neonatal heart hypertrophy, angiogenesis; vascular endothelial growth factor; VEGF-stimulated proliferation; endothelial growth factor; VEGF-stimulated proliferation; endothelial cell; r-lymphocyte proliferation; retinal neuron; rod photoreceptor cell; c-fos induction; adipocyte; chondrocyte differentiation; cancer; tumour; colon cancer; lung cancer; thoract cancer; pancreatic beta-cell precursor cell; pancreatic beta-cell insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; neurodegenerative disorder; chromosome mapping; transgenic animal; knock-out animal; antidiabetic; antianaemic; cytostatic; nootropic; neuroprotective; antiparkinsonian.
transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0088028P-
98US-0088028P-
98US-0088033P-
98US-0088033P-
98US-0088122P-
98US-00881212P-
98US-0088212P-
98US-0088738P-
98US-0088738P-
98US-0088738P-
98US-0088738P-
98US-0088738P-
98US-008874P-
98US-008874P-
98US-0088816P-
98US-0088818P-
98US-008834P-
98US-008834P-
98US-008834P-
98US-008834P-
98US-008834P-
98US-008834P-
98US-008838P-
98US-0089514P-
                                                                                                                                                                                                                                                                                                                                  98US-0075945P-
98US-0078910P-
98US-0084600P-
98US-0087106P-
98US-0087607P-
98US-008769P-
98US-0087759P-
98US-0087827P-
98US-0088021P-
98US-0088021P-
                                                                                                                                                                                                                                                                           97US-0062250P.
97WO-US020069.
                                                                                                                                                                                                                                                                                                  97US-0065186P.
97US-0065311P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0089908P
                                                                                                                                                                                                                                           2001US-00990444
                                                                                                                                                                                                                                                                 97US-0049787P
                                                                                                                                                                                                                                                                                                                         97US-0066770P
 secreted protein;
                                                                                                                                                                                              US2002193300-A1.
                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                              20-MAR-1998
28-MAR-1998
28-MAY-1998
28-MAY-1998
02-JUN-1998
02-JUN-1998
02-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
                                                                                                                                                                                                                                           14-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUN-1998;
10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JUN-1998
                                                                                                                                                                                                                     19-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-JUN-1998
                                                                                                                                                                                                                                                                  16-JUN-1997
                                                                                                                                                                                                                                                                             17-0CT-1997
                                                                                                                                                                                                                                                                                         05-NOV-1997
                                                                                                                                                                                                                                                                                                                         24-NOV-1997
```

```
99WO-US028301.
                                                                                99WO-US030911.
2000WO-US000219.
                                                                                                        2000WO-US004341.
2000WO-US004414.
                                                                                                                                                          2000WO-US008439
                                                                                                                                                                     2000WO-US013705.
2000WO-US014042.
                              99WO-US005028.
                                           99WO-US021090
                                                99WO-US021547
                                                        99WO-US028313
                                                                          99WO-US030095
                                                                                            2000WO-US000376
                                                                                                   2000WO-US003565
                                                                                                                     2000WO-US004914
                                                                                                                           2000WO-US005004
                                                                                                                                       2000WO-US006319
                                                                                                                                                                                              2000WO-US020710
                                                                                                                                                                                                                       2000WO-US030952
                                                                                                                                                                                                                                   2001WO-US006520
                                                                                                                                                                                                                                         2001WO-US017800
                                                                                                                                                                                                                                                2001WO-US019692
                 98WO-US025108
99WO-US000106
                                                                                                                                 2000WO-US005841
                                                                                                                                                                                                     2000WO-US022031
     98WO-US019437
                                                                                                                                            15-MAR-2000;
20-MAR-2000;
30-MAR-2000;
                                          15-SEP-1999;
15-SEP-1999;
30-NOV-1999;
                                                                                                                           24-FEB-2000;
02-MAR-2000;
                 01-DEC-1998;
05-JAN-1999;
08-MAR-1999;
02-JUN-1999;
                                                                                                                                                                                  30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                           23-AUG-2000;
                                                                                                                                                                                                                                   28-FEB-2001;
                                                                                                                                                                                                                                               20-JUN-2001;
                                                                                                                                                                                                                                                      29-JUN-2001;
                                                                                                                                                                                                                                                                  28-AUG-2001;
                                                                                                                                                                15-MAY-2000;
                                                                                                                                                                     17-MAY-2000;
                                                                                                                                                                                               28-JUL-2000;
                                                                                                                                                                                                                      08-NOV-2000;
                                                                                                                                                                                                                                          01-JUN-2001;
                                                                                            06-JAN-2000;
                                                                                                       18-FEB-2000;
22-FEB-2000;
                                                                                                                     24-FEB-2000;
                                                                                                                                      10-MAR-2000;
                                                                                                                                                                                                     11-AUG-2000;
     17-SEP-1998;
                                                             01-DEC-1999
```

(GETH) GENENTECH INC.

PJ; Eaton DL; urd A, Godowski Pi an J, Paoni NF; ums PM, Wood WI; Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Zhang

WPI; 2003-657231/62. N-PSDB; ADD06995.

Novel isolated PRO polypeptides e.g., PRO826, PRO1068, PRO1184, PRO1346 and PRO1375, which stimulate proliferation of stimulated T-lymphocytes and are thus therapeutically useful for enhancing immune response.

Claim 12; SEQ ID NO 377; 653pp; English.

The invention relates to human secreted and transmembrane PRO polypeptides or polymucleotides encoding them. The PRO polypeptides or polymucleotides are useful as pharmaceuticals, diagnostics, blosensors or polymucleotides are useful as pharmaceuticals, diagnostics, blosensors or bioreactors. They are useful for stimulating hypertrophy of neonatal heart, promoting angiogenesis, inhibiting vascular endothelial growth the proliferation of stimulated T-lymphocytes, enhancing the survival or proliferation of stimulated T-lymphocytes, enhancing the survival or proliferation of retinal neurons or rod photoreceptor cells, inducing closin endothelial cells, modulating glucose or FFA uptake by adipocytes, inducing proliferation and/or re-differentiation of chondrocytes, or inducing pancreatic beta-cell precursor differentiation into mature pancreatic beta-cells. They may therefore be useful in the treatment of

AL, Sherwood S; Wood WI, Zhang Z;

ski PJ, Gurney Watanabe CK, W

Godowski PJ,

Goddard A, co... Tumas D,

Gerritsen ME, Goddard emith V, Stewart TA, WPI; 2003-852595/79.

N-PSDB; ADD09575.

New secreted and transmembrane PRO nucleic acids and polypeptides, useful for detecting a tumor, stimulating the release of tumor necrosis factor

detecting a tumor, stimulating the release of tumor necrosis faring from blood and stimulating the release of proteoglycans from

Claim 12; Fig 474; 637pp; English.

cartilage

alpha

c various insulin deficient states in mammals, including diabetes mellitus, and in treating undesired endothelial cell growth, e.g., inhibiting to treating mammalian haemoglobin-associated disorders (e.g., various thalassaemias), cystic named dysplasia, polycystic kidney disease, renal tumours, and other cancers such as those of the colon, lung and breast. PRO polypeptides or antibodies to PRO polypeptides may be used to detect a PRO polypeptide in a sample; to link a bloactive molecule to a cell; to modulate a hological activity of a cell; as molecular weight markers for protein electrophoresis purposes; for tissue typing; to prepare a medicament for treating a condition responsive to the polypeptide or antibody, such as neurodegenerative disorders (e.g., Parkinson's disease or Alzheimer's disease); and in various diagnostic assays. The PRO polynucleotides can be used as hybridisation probes, in chromosome and gene mapping, in generating attisense RNA and DNA, and in gene therapy. The polynucleotides and in generating either transgenic animals or knock-out animals which, in turn, are useful in the development and screening of therapeutically in the mapping. The sequence represents a human PRO polypeptide of the invention. Note: The sequence represents a human PRO polypeptide of the invention. Note: The sequence for this patent is also available in electronic format from USPTO at sequence. 9 Human; PRO; secreted polypeptide; transmembrane polypeptide; tummour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tummour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; 09 1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT Gaps ; 0 Length 90; 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0; GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90 ADD09576 standard; protein; 90 AA Human PRO polypeptide #237. (first entry) Query Match
Best Local Similarity luv...
90; Conservative Sequence 90 AA; 01-JAN-2004 ADD09576; 61 RESULT 154 ADD0957
ADD095 à ద g ð

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the prosence of a tumour in a mammal (e.g. adrean). Insight the presence of a tumour in a mammal (e.g. adrean). Insight the presence of a tumour in a mammal (e.g. adrean). Insight the presence of a tumour in a mammal (e.g. adrean). Insight the presence of a tumour in a mammal (e.g. adrean). Insight the presence of a tumour in a mammal (e.g. adrean). Insight the problem of the problem of

```
9
                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; PRO; pancreatic beta-cell precursor cell; pancreatic beta-cell;
                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                               GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                                                                                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                                                                                                               ADC83243 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO polypeptide #118
                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                             90; Conservative
                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                    Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                            ADC83243;
                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 155
                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                         ADC83243
                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                   à
```

immune system cell infiltration

28-MAY-2002; 2002US-00156848. 03-MAR-2000; 2000US-0187202P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

JS2003194775-A1

16-0CT-2003,

Homo sapiens

Gao W;

Filvaroff E,

Desnoyers L,

Deforge L,

Beresini M,

Baker KP,

(GETH) GENENTECH INC

```
98US-0090444P.
98US-0090444P.
98US-0090472P.
98US-0090472P.
98US-0090542P.
98US-009053P.
98US-0090542P.
98US-0090542P.
98US-0090542P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0090654P.
98US-0091478P.
98US-0091628P.
98US-0091628P.
98US-0091628P.
98US-0095321P.
98US-009639P.
98US-0097978P.
98US-0097978P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
20-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                              30-JUL-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
10-AUG-1998;
10-AUG-1998;
11-AUG-1998;
11-AUG-1998;
11-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
 24 - 70N - 1998;
25 - 70N - 1998;
26 - 70N - 1998;
26 - 70N - 1998;
27 - 70N - 1998;
28 - 70N - 1998;
29 - 70N - 1998;
20 - 70D - 1998;
  insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; antidiabetic; antianaemic; cytostatic; cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                                                                      9710S - 0049787P.
9710S - 0065126P.
9710S - 0065131P.
9710S - 0065311P.
9710S - 0065311P.
9710S - 0065311P.
9810S - 00789120P.
9810S - 008120P.
9810S - 0081759P.
9810S - 008172P.
9810S - 008172P.
9810S - 008172P.
9810S - 008174P.
                                                                                                                     2001US-00997683
                                                                              US2003059783-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-70N-1998)
11-70N-1998)
11-70N-1998)
12-70N-1998)
16-70N-1998)
16-70N-1998)
17-70N-1998)
17-70N-1998)
17-70N-1998)
17-70N-1998)
17-70N-1998)
17-70N-1998)
18-70N-1998)
18-70N-1998)
18-70N-1998)
18-70N-1998)
18-70N-1998)
18-70N-1998)
22-70N-1998)
22-70N-1998)
23-70N-1998)
23-70N-1998)
23-70N-1998)
                                                                                                                                                  17-OCT-1997

12-NOV-1997

12-NOV-1997

12-NOV-1997

24-NOV-1997

25-FEB-1998

26-MAX-1998

26-MAX-1998

26-UN-1998

26-UN-1998

26-UN-1998

36-UN-1998

36-UN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
                                                                                                                     15-NOV-2001;
                                                          Homo sapiens
                                                                                                  27-MAR-2003
```

```
Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human secreted and transmembrane protein PRO1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADD41289 standard; protein; 90 AA
                                                                                                                                 99US-0145698P.
99US-0146222P.
99US-0149396P.
                                                                     99WO-US005028.
99US-0123957P.
99WO-US012252.
                                                                                                   99US-0141037P.
99US-0143048P.
99US-0144758P.
                                                                                                                                                                                                                                                                                   2000WO-US004341.
                                                                                                                                                                                                  99WO-US028313.
                                                                                                                                                                                                          99WO-US028301.
                                                                                                                                                                                                                    99WO-US028634.
                                                                                                                                                                                                                                          99WO-US030911.
                                                                                                                                                                                                                                                             2000WO-US000376.
                                                                                                                                                                                                                                                                        2000WO-US003565.
                                                                                                                                                                                                                                                                                            2000WO-US004414.
                                                                                                                                                                                                                                                                                                        2000WO-US004914.
                                                                                                                                                                                                                                                                                                                  2000WO-US005004.
                                                                                                                                                                                                                                                                                                                                               2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                   30-MAR-2000; 2000WO-US008439
15-MAY-2000; 2000WO-US013358
17-MAY-2000; 2000WO-US013705
22-MAY-2000; 2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US015264
                                                                                                                                                                                      99US-0158663P.
                                                                                                                                                                                                                               99WO-US030095.
                                                                                                                                                                                                                                                                                                                             2000WO-US005841
                                                                                                                                                                                                                                                                                                                                      2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US023522
                                                 98US-0113296P.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 100.
90; Conservative
                                                                                                                                                                  99WO-US02
                                                                                                                                                                                                                                                     2000WO-US00
                                                                                                                                                                                                                                                                                 18 FEB 2000; 22-FEB-2000; 24-FEB-2000; 24-FEB-2000; 202-MAR-2000; 210-MAR-2000; 20-MAR-2000; 20-MAR-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                               30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JAN-2004
                                                                                                                                                                                                                                                     05-JAN-2000;
                                                                                                                                                                                                                                                                         11-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90;
                                                                                                                                                                                                 30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                              16-DEC-1999;
                                                                                                                                                                                                                                                                06-JAN-2000;
                                                                                                                         20-JUL-1999;
26-JUL-1999;
                                                                                                                                                                             15-SEP-1999;
08-OCT-1999;
                                                                                 12-MAR-1999;
02-JUN-1999;
                                                                                                                                                                   15-SEP-1999
                                                             05-JAN-1999
                                                                      08-MAR-1999
                                                                                                        23-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADD41289;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best_Local
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

```
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the cransmembrane) polypeptides (1). (1) is useful for stimulating the cransmeapon of the callo, for release of TNR-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for callo firmulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte or stimulating the proliferation of or gene expression in pericyte or stimulating the proliferation of or T-lymphocyte cells, for stimulating of a cytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and CDNA nuclectide sequences or antisense probes. (1) is also useful as therapeutic aspent. PRO is useful in assays to identify other proteins or molecules involved in binding increaction. A polynuclectide (II) encoding (I) is useful in chromosome and gene mapping, in generation of antisense RNA and DNA, in the correction. A polynpetically useful reagents, in gene therapy, for propagation of therapeutically useful reagents, in gene therapy, for chromosome identification, as almomosome marker, and for generating of chromosome identification, in variance in a development and chromosome identification, as almomosome marker, and for generating of chromosome identification, as almomosome marker, and for generating of chromosome identification, as almomosome marker, and for generating of chromosome identification, as almomosome identification, as almomosome identification, as almomosome identification, as almomosome identification and propersion of the propersion of the propersion of the propersion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    е.
9
                  lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; liver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, edetecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino cid sequence of a novel human secreted and transmembrane PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gao '
cell differentiation inhibitor; cytokine release stimulator; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Deforge L, Desnoyers L, Filvar
A, Godowski PJ, Gurney AL, She:
Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 12; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                          16-SEP-1998; 98WO-US019330.
25-AUG-1999; 99US-00380139.
22-FEB-2000; 2000WO-US004414.
                                                                                                                                                                                                                                                                                    15-MAY-2002; 2002US-00146786.
                                                                                                                                                                                                                                                                                                                                     97US-0066511P
                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker KP, Beresini M, De
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-875645/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; ADD41288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                    US2003203438-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2000;
                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                     24-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptide
                                                                                                                                                                                                                                    30-0CT-2003
```

0

0; Gaps

09

1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels

Conservative

90;

Similarity

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynuclectides encoding them. The transmembrane polypeptides an antibody which specifically binds to a PRO colypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polyunclectides are useful in molecular biology, including uses as the properties and in gene therapy. The polyunclectides may also antisense RNA and DNA and in gene therapy. The polyunclectides may also be used in preparing PRO polypeptides by recombinant techniques and in the acelopment and screening of therapeutically useful.

Comparison of the properties of antibodies are used in preparing a caption of the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation
                                                                                                                                                                                                                                                                                                                                 Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sendothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proceoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for detection of tumors, modulating the uptake of glucose or free fatty acids and stimulating the release of proteoglycans from
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Mood WI, Zhang Z;
                                            90
                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                         GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                      Æ.
                                                                                                                                                                                      ADD52428 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-DEC-1999; 99US-0170262P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-MAY-2002; 2002US-00152374.
                                                                                                                                                                                                                                                                                                            Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                      15-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-852593/79.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ADD52427.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003194769-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-0CT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cartilage.
                                                                                                                                                                                                                              ADD52428;
                                                                                                                                                  RESULT 157
                                                                                                                                                                   g
                                                    à
```

```
of human microvascular endothelial cells, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating to stimulating differentiation of adipocyte cells, for stimulating to proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating cells, for inducing endothelial cell tube formation and for treating a trimulate the release of proteoglycans arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, companies are also useful for treating sports-related joint problems, polypeptides are also useful for treating various mammalian haemoglobincasociated disorders such as various thalassaemias and conditions which associated disorders a buman PRO polypeptide of the invention. This sequence cata for this patent is also available in electronic format from the USPTO website at sequence sover.
                                                                                                                                                                                                                                                                                                                                                                                               o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; inner ear utricular supporting cell; T-lymphocyte cell; inner ear utricular supporting cell; T-lymphocyte cell; sports injury; proteoglycan; articular cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLILLLUCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADD53168 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US014552.
98WO-US017888.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019437
98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US012456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-APR-2002; 2002US-00123156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003194792-A1.
                                                                                                                                                                                                                                                                                                                               Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-0CT-1998,
29-0CT-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADD53168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADD53168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                 $$$$$$$$$$$$$$$$$$$$$$$$
```

98WO-US022991

```
23-AUG-2000; 2000WO-USO23522.
24-AUG-2000; 2000WO-USO23328.
08-NOV-2000; 2000WO-USO30952.
10-NOV-2000; 2000WO-USO30873.
20-DEC-2000; 2000WO-USO34956.
20-DEC-2000; 2000WO-USO34956.
28-FEB-2001; 2001WO-USO36520.
01-MAR-2001; 2001WO-USO06666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00828366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-MAY-2001; 2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00872035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00808689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00816744
                                                                                                                                                                   99WO-US028551.
                                                                                                                                                                                          99WO-US030095
                                                                                                                                                                                                   99WO-US030911.
                                                                                                                                                                                                         99WO-US030999.
                                                                                                                                                                                                                          99WO-US031243.
                                                                                                                                                                                                                                                          2000WO-US000376
                                                                                                                                                                                                                                                                                                                        2000WO-US005746
                                                                                                                                                                                                                                                                                                                                 2000WO-US005841
                                                                                                                                                                                                                                                                                                                                         2000WO-US006884
                                                                                                                                                                                                                                                                                                                                               2000WO-US007377
2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US022031
                                                                                                                            99WO-US028214.
                                                                                                                                                            99WO-US028634
                                                                                                                                                                         99WO-US028564
99WO-US028565
                                                                                                     99WO-US021090.
                                                                                                                   99WO-US023089
                                                                                                                                            99WO-US028409
                                                                                                                                                  99WO-US028301
                                                                                                                                                                                                                                          2000WO-US000219
                                                                                                                                                                                                                                                                 2000WO-US003565
                                                                                                                                                                                                                                                                         2000WO-US004341
                                    99WO-US005190
                                             2000WO-US006319.
                                                     99WO-US008615
                                                                              99WO-US020111
                                                                                     99WO-US020594
                                                                                                            99WO-US021547
                                                                                                                                                                                                                                                 2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-MAR-2001;
                                                                                                                                                                                                                                                                                                                                       15-MAR-2000;
20-MAR-2000;
21-MAR-2000;
30-MAR-2000;
                                                                                                                                                                                                                                                                                 18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                          06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                24-FEB-2000;
                                                                                                                                                                                                                                                                                                        24-FEB-2000;
                                                                                                                                                                                                                           30-DEC-1999;
                                                                                                                                                                                                                                          05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                          18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                 02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                               22-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                       30-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                               02-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                      28-JUL-2000
11-AUG-2000
                                                                                                                     05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                  01-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                        17-MAY-2000
                                                               14-MAY-1999;
                                                                                                                                      30-NOV-1999,
                                                                                                                                                                                    02-DEC-1999
                                                                                                                                                                                                                                   30-DEC-1999
                                                                      .001-NUL
                                                                                     08-SEP-1999
                                                                                                              15-SEP-1999
                                                                                                                                            30-NOV-1999
                                                                                                                                                      01-DEC-1999
                                                                                                                                                                                                   20-DEC-1999
```

01-JUN-2001; 2001WG-US017800. 05-JUN-2001; 2001US-00874503. 14-JUN-2001; 2001US-00886342. 20-JUN-2001; 2001US-00886342. 20-JUN-2001; 2001WG-US019692. 21-JUN-2001; 2001WG-00887879. 06-AUG-2001; 2001US-00924419 09-AUG-2001; 2001US-00927796 16-AUG-2001; 2001US-00931836 29-JUN-2001; 2001WO-U5021056. 09-JUL-2001; 2001WO-U5021735. 18-JUL-2001; 2001US-00908827 06-AUG-2001; 2001US-00924419 2001US-00028072 19-DEC-2001;

(GETH) GENENTECH INC.

3 Gao Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G: Gerritsen MB, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-852599/79. N-PSDB; ADD53167. New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, useful in chromosome and gene mapping, in generating antisense RNA and DNA, and in the treatment of cancer.

Claim 12; Fig 474; 638pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, inuig, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast probase, in chromosome and gene mapping, in generating the presence of a tumour in a mammal (e.g. adrenal, lumid, colon, breast, probaring PRO polypeptides by recombinant techniques and in the development and screening or knock-out animals which are consectuting either transgenic animals or knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful as tumours, for stimulating the uppaptides or mitbodies, such as tumours, for stimulating and inhibiting proliferation of or gene expression in pericyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating proliferation of inner ear utricular such as sports injuries and corting proliferation of inner ear utricular such as sports injuries and corting proliferation. The proliferation of inner ear utricular such as sports injuries and andor cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides which stimulate the related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian hammed local immune system cell in thempolophin sequence represents a human pRO plypeptide of the propine of the proliferatio

Sequence 90 AA;

0; Gaps Query Match
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0; Indels

0

1 MTFFLSILLLLUVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTGSSLEDSVTPTKAVKTT 60

> a à

```
g
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                    원
8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the invention describes and included the stimulating the cransmenbrane) polypeptides (1). (1) is useful for stimulating the cransmenbrane) polypeptides (1). (1) is useful for stimulating the uptake of release of TNR-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of increase supporting cells, for stimulating the proliferation of increase utilicular supporting cells, for stimulating the proliferation of increase utiliticular supporting cells, for stimulating the proliferation of increase of the stimulating of the release of a cytokine from PBMC cells, for inhibiting the binding of the release of tumour by the inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endotherial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, the presence of tumour in a mammal. The tumour is lung, colon, breast, corribating genomic and cDNA nucleotide sequences or artisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in the
                                                                                                                                                                                                                                Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FFA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator;
tumour;
colon tumour; broast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or
in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L, Desnoyers L, Filvaroff E, Gi
ski PJ, Gurney AL, Sherwood S;
Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention describes 305 nucleic acids encoding PRO (secreted
                                                                                                                                                                                                            Novel human secreted and transmembrane protein PRO1159.
                     90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; SEQ ID NO 474; 659pp; English.
                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                       Deforge L,
1, Godowski
                                                                                                                       ADD53720 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP, belegand A, Godows
Gerritsen ME, Goddard A, Godows
Crowart TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-1999; 99WO-US012252.
01-DEC-2000; 2000US-00380137.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-MAY-2002; 2002US-00146728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0091360P
                                                                                                                                                                                 15-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-875644/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ADD53719.
                                                                                                                                                                                                                                                                                                                                                                                                         US2003203437-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                      30-OCT-2003
                                                                                                                                                        ADD53720;
                         61
                                                     61
                                                                                                                             g
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, PRO; pancreatic beta-cell precursor cell; pancreatic beta-cell; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothalial cell growth; cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; antidiabetic; antianaemic; cyctostatic; cardiant; vulnerary; antinflammatory; anorectic.
preparation of PRO polypeptide, for generating transgenic animals or knockout animals which in turn are useful in the development and screening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating probes. An anti-(1)-antibody is useful in diagnostic assays for PRO, detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO
                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLILLLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                               100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9705-0065186F
9705-0065311P-
9705-0075945P
9805-0078910P-
9805-0083322P-
9805-0087106P-
9805-0087607P-
9805-0087607P-
9805-0087607P-
9805-0087607P-
9805-0088025P-
9805-0088025P-
9805-0088028P-
9805-0088028P-
9805-0088028P-
9805-0088028P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADD55350 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0088033P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0049787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97WO-US020069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-NOV-2001; 2001US-00989328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                  90; Conservative
                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003077593-A1.
                                                                                                                                                                                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-JUN-1998;
04-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUN-1998;
03-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .2-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JAN-2004
                                                                                                                                                                                                                     polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD55350;
                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-MAY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUN-
                                                                                                                                                                                                                                                                                                                                                       Matches
```

0088167P 0088202P 0088212P 0088217P 00886317P 00887381 00887381 00887381 00887381 00887381 00887381 00888261 00888261 00888261 00888261	98US-0089440P. 98US-0089512P. 98US-0089532P. 98US-0089538P. 98US-0089538P. 98US-0089538P. 98US-0089538P. 98US-008990P. 98US-008990P. 98US-008990RP. 98US-0089948P. 98US-0089948P. 98US-0089948P. 98US-00990254P. 98US-0090254P. 98US-0090254P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090444P.	13 - 009065 13 - 009065 13 - 009065 13 - 009086 13 - 009185 14 - 00915 15 - 00916 16 - 00916 17 - 00916 17 - 00953 17 - 009065 17 - 00953 17 - 009065 17 - 00953 17 - 009065 17 - 00965 17 - 009065 17 - 00965 17 - 009065 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965 17 - 00965
05-JUN-1998; 05-JUN-1998; 05-JUN-1998; 06-JUN-1998; 09-JUN-1998; 10-JUN-1998; 10-JUN-1998; 10-JUN-1998; 11-JUN-1998; 11-JUN-1998; 11-JUN-1998; 11-JUN-1998;	PR 12-07N-1998; PR 16-07N-1998; PR 16-07N-1998; PR 17-07N-1998; PR 17-07N-1998; PR 17-07N-1998; PR 17-07N-1998; PR 17-07N-1998; PR 17-07N-1998; PR 18-07N-1998; PR 19-07N-1998; PR 19-07N-1998; PR 22-07N-1998; PR 24-07N-1998; PR 25-07N-1998; PR 25-07N-1998;	25-JUN-1998; 25-JUN-1998; 26-JUN-1998; 26-JUN-1998; 01-JUL-1998; 01-JUL-1998; 02-JUL-1998; 02-JUL-1998; 02-JUL-1998; 02-JUL-1998; 02-JUL-1998; 02-JUL-1998; 02-JUL-1998; 02-JUL-1998; 03-JUL-1998; 04-JUL-1998; 04-JUL-1998; 06-JUL-1998; 06-JUL-1998; 06-JUL-1998; 06-JUL-1998; 07-JUL-1998; 06-JUL-1998;

BUS-0095321P BUS-0095325P 8BUS-0095316P 8BUS-0096012E 8BUS-0096012E 8BUS-0096146E 8BUS-0096146E 8BUS-009612F 8BUS-0096781P 8BUS-00967781P 9BUS-00967781P 9BUS-0096766E	98US-00968911 98US-0096891 98US-0096895 98US-0096895 98US-0096950 98US-00977218 98US-00977218 98US-00977612 98US-00977612 98US-00977613 98US-0097977 98US-0097977 98US-0097977 98US-0097977 98US-0097977 98US-0097977	98WO-US0139437. 98WO-US021141. 98WO-US021141. 98WO-US022108. 99WO-US0002028. 99WO-US0002028. 99WO-US01397P. 99WS-0141037P. 99WS-0143948P. 99WS-0141037P. 99WS-0144758P. 99WS-014598P. 99WS-0146222P. 99WS-0146222P. 99WS-0146222P. 99WS-0180137P. 99WS-US021030. 99WO-US02103. 99WO-US02137. 99WO-US028634. 99WO-US028634. 99WO-US028634. 99WO-US028634. 99WO-US028634. 2000WO-US0003176. 2000WS-US0003176. 2000WS-US0003176. 2000WS-US0003176. 2000WS-US0003176. 2000WS-US0003176. 2000WS-US0003176. 2000WS-US0003176.	2000WO-US008
4-AUG-1998; 4-AUG-1998; 4-AUG-1998; 0-AUG-1998; 0-AUG-1998; 11-AUG-1998; 11-AUG-1998; 12-AUG-1998; 17-AUG-1998; 17-AUG-1998; 17-AUG-1998; 17-AUG-1998; 17-AUG-1998; 17-AUG-1998; 17-AUG-1998;	17-AUG-1999; 17-AUG-1998; 17-AUG-1998; 18-AUG-1998; 18-AUG-1998; 18-AUG-1998; 18-AUG-1998; 19-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 26-AUG-1998; 16-SEP-1998; 16-SEP-1998; 16-SEP-1998;	17-SEP-1998; 07-077-1998; 08-078-1998; 08-078-1999; 12-MAR-1999; 12-MAR-1999; 07-0711-1999; 26-0711-1999; 26-0711-1999; 17-AUG-1999; 17-AUG-1999; 17-AUG-1999; 17-AUG-1999; 17-AUG-1999; 18-ERP-1999; 11-ERP-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 24-ERB-2000; 26-MAR-2000; 11-PRG-1999; 11-PRG-2000; 27-MAR-2000; 11-PRG-2000; 28-MAR-2000; 28	30-MAR-2000;
% % % % % % % % % % % % % % % % % % %	X X X X X X X X X X X X X X X X X X X		PR

```
98US-0088217P.
98US-0088455P.
98US-0088742P.
98US-0088142P.
98US-0088142P.
98US-0088124P.
98US-0088824P.
98US-0088826P.
98US-0088826P.
98US-0088826P.
98US-0088812P.
98US-0089512P.
98US-0089512P.
98US-0089513P.
98US-0089513P.
98US-0089513P.
98US-0089513P.
98US-0089513P.
98US-0089513P.
98US-0099678P.
98US-0099678P.
98US-0099678P.
98US-0090643P.
98US-0090648P.
98US-009063P.
98US-009063P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-009163P.
98US-00918P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-AUG-1998;
10-AUG-1998;
10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
04-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JUN-1998;
25-JUN-1998;
26-JUN-1998;
26-JUN-1998;
                                                                                           11-70N-1998;
11-70N-1998;
12-70N-1998;
16-70N-1998;
16-70N-1998;
17-70N-1998;
05-JUN-1998;
00-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
10-JUN-1998;
11-JUN-1998;
                                                                                                                                                                   17-JUN-1998)
17-JUN-1998
17-JUN-1998
17-JUN-1998
17-JUN-1998
18-JUN-1998
18-JUN-1998
19-JUN-1998
                                                                                                                                                                                                                                                               19-JUN-1998;
22-JUN-1998;
22-JUN-1998;
22-JUN-1998;
23-JUN-1998;
                                                                                                                                                                                                                                                                                                                   23-JUN-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                      24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                          24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                      24-JUN-1998
                                                                                                                                                                                                                                                                                                                                                           24-JUN-1998
  9
                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                  Human; PRO; pancreatic beta-cell precursor cell; pancreatic beta-cell; insulin deficiency; diabetes mellitus; haemoglobin-associated disorder; thalassaemia; endothelial cell growth; cancer; cystic renal dysplasia; polycystic kidney disease; renal tumour; antidiabetic; antianaemic; cytostatic; cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                                                                                                   MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                 MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                Gaps
                                                                                                                                .
0
                                                                                                          Length 90;
                                                                                                                                Indels
                                                                                                           100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                            GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                           GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                      ADD56308 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0049787P.
97US-0062260P.
97WS-006511P.
97US-006511P.
97US-006511P.
98US-0078910P.
98US-0081322P.
98US-0081322P.
98US-008122P.
98US-0081759P.
98US-0087759P.
98US-0087759P.
98US-0087759P.
98US-0087759P.
98US-0087759P.
98US-0088021P.
98US-0088028P.
98US-0088028P.
98US-0088028P.
98US-0088028P.
98US-0088028P.
98US-0088039P.
98US-0088039P.
98US-0088039P.
98US-0088039P.
98US-0088039P.
98US-0088039P.
    15-MAY-2000; 2000WO-US013358...
17-MAY-2000; 2000WO-US013705...
22-MAY-2000; 2000WO-US014042...
30-MAY-2000; 2000WO-US015264...
23-JUN-2000; 2000WO-US015264...
23-JUN-2000; 2000WO-US015264...
11-MIG-2000; 2000WO-US020710...
11-MIG-2000; 2000WO-US023522...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00993583
                                                                                                                                                                                                                                                                                                                                  Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                               Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003077594-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-JUN-1997;
17-OCT-1997;
12-NOV-1997;
13-NOV-1997;
24-NOV-1997;
25-FEB-1998;
20-MAX-1998;
07-MAY-1998;
07-JUN-1998;
02-JUN-1998;
04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-NOV-2001;
                                                                                                                                                                                                                                                                                                                 15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-APR-2003
                                                                                                                                                                                                                                                                                             ADD56308;
                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                  RESULT 161
ADD56308
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                8
```

```
18-FEB-2000; 2000WO-US004341.

24-FEB-2000; 2000WO-US004414.

24-FEB-2000; 2000WO-US004914.

24-FEB-2000; 2000WO-US005004.

02-MAR-2000; 2000WO-US005841.

10-MAR-2000; 2000WO-US005819.

15-MAR-2000; 2000WO-US005884.

20-MAR-2000; 2000WO-US005884.

30-MAR-2000; 2000WO-US005884.
98US-0096012P.
98US-0096143P.
98US-0096322P.
98US-009672P.
98US-009673P.
98US-009673P.
98US-009673P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-009689P.
98US-00968P.
98US-00969P.
98US-00969P.
98US-00969P.
98US-009797P.
98US-009797P.
98US-009797P.
                                                                                                                                                                                                                                                                                                                             98US-0113296P.
99WO-US000106.
99WO-US305028.
99US-0123957P.
99WO-US012552.
                                                                                                                                                                                                                                                                                                                                                                                               99US-0145698P.
99US-0146222P.
99US-0149396P.
                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0158663P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028313.
99WO-US028301.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US030911.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US003565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US013705
2000WO-US014042
2000WO-US014941
                                                                                                                                                                                                                                                                           98US-0100634P.
                                                                                                                                                                                                                                                                                                              98WO-US021141.
98WO-US025108.
                                                                                                                                                                                                                                                                                                                                                                              99US-0143048P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US000376
                                                                                                                                                                                                                                                                                             98US-0100858P.
                                                                                                                                                                                                                                                  98US-0097986P.
                                                                                                                                                                                                                                                                    98US-0098525P
                                                                                                                                                                                                                                                                                                      98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
20-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                      01-DEC-1998;
22-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                               26-JUL-1999;
28-JUL-1999;
17-AUG-1999;
15-SEP-1999;
16-SEP-1999;
30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                               24-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                          26-AUG-1998;
31-AUG-1998;
16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
07-OCT-1998;
                                           17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                    17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
18-AUG-1998;
                                                                                                                                                                                                                         26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                              08-MAR-1999;
12-MAR-1999;
02-JUN-1999;
23-JUN-1999;
07-JUL-1999;
20-JUL-1999;
                                                                                                                                                                         20-AUG-1998;
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New secreted and transmembrane PRO nucleic acids and polypeptides, useful for detecting the presence of a tumor, stimulating the release of tumor necrosis factor alpha from human blood and treating, e.g. organ failure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; PFA; skeletal muscle cell; adipocyte cell; perioyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for simulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the
                                                                                                                                                                                                                   09
                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                     1 MIFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Deforge L, Desnoyers L, Filvaroff E, C
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                     Length 90;
                                                                                                                                                      Indels
                                                                                                                     100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                        61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                             Ŕ
                                                                                                                                                                                                                                                                                                                                                                             ADD51876 standard; protein; 90
02-JJN-2000; 2000WO-US015264.
23-JJN-2000; 2000US-0213637P.
28-JJJ-2000; 2000WO-US0220110.
11-AUG-2000; 2000WO-US022031.
23-AJU-2000; 2000WO-US025522.
24-AUG-2000; 2000WO-US023328.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-MAY-2002; 2002US-00160500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                        90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker KP, Beresini M,
Gerritsen ME, Goddard
Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-852597/79.
N-PSDB; ADD51875.
                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003194779-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                             15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                               ADD51876;
                                                                                                                                                                                                                                                                                          19
                                                                                                                        Query Match
                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                             RESULT 162
                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                               ADD5187
                                                                                                                                                                                                                                                                                                                                                                                               ## ## ## ##
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                        g
```

```
polymicleotides are useful in molecular biology, including uses as thybridisation probes, in chromosome and gene mapping, in generating antiperbes in chromosome and gene mapping, in generating antiperber in chromosome and gene mapping, in generating either transgenic animals of rherapeutically useful asequits The PRO polypeptides by recombinant techniques and in useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of simulating differentiation of adipocyte cells, for stimulating colliferation of or gene expression in pericyte cells, for stimulating cells in for stimulating cells, for inducing endothelial cell tube formation and for treating cells, for cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sporte singulars and provession to the proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                various bone analysis to the stimulate the release of proteoglycans arthritis. PRO polypedides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, particular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which sequence represents a human PRO polypeptide of the invention. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                            detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as
proliferation or differentiation of chondrocyte cells and a method for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the USPTO website at segdata.uspto.gov.
                  $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
```

1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 0; Indels 100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49; iive 0; Mismatches 0; 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 90; Conservative Query Match Best Local Similarity Sequence 90 AA; Matches 셤 ð

ö

Gaps · 0

Length 90;

9

ADD02675 standard; protein; 90 AA Human PRO polypeptide #237. (first entry) 15-JAN-2004 ADD02675;

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular modothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; Tlymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

24-APR-2002; 2002US-00131820. US2003203431-A1.

Homo sapiens

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the polymelectide in the forest, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The pyralisation probes, in chromosome and gene mapping, in generating antisense RNA and in gene therapy. The polymucleotides may also by predicting PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful casquits. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation from an anticovascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscie cells, for stimulating differentiation of adipocyte cells, for stimulating proliferation of inner ear uricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating carticular cartilage defects, osteoarthritis supporting arthritis. PRO polypeptides which simulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, cartilage defects, osteoarthritis and rheumatoid atthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, captured disorders such as various bhody system cells infilteration. This capture are presents a human PRO polypeptide of the invention. Note: The sequence expresents a human PRO plypeptide of the interpretation of the proliment is also available in electronic format from the capture of this partner is a
                                                                                                                                                                                                                          Gao W;
                                                                                                                                                                                                                                                                                                                                                                                  New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.
                                                                                                                                                                                                                          Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                     Filvaroff E, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USPIO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 12; Fig 474; 637pp; English
                                      18-OCT-1999; 99US-00403297.
18-FEB-2000; 2000WO-US004342.
24-AUG-2000; 2000WO-US023328.
01-DEC-2000; 2000WO-US0332878.
                   99WO-US020111
                                                                                                                                                                                                                             Beresini M,
ME, Goddard
                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                  Gerritsen ME, Goddard
Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                        2003-875638/81.
                                                                                                                                                                                                                                                                                                                                              N-PSDB; ADD02674.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 90 AA;
28-OCT-1998;
01-SEP-1999;
                                                                                                                                                                                                                                 Baker KP,
```

or in

9 9 1 MTFFLSLLILLILVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT ..0 100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; 0; Mismatches 90; Conservative Query Match Best Local Similarity Matches

ð g ŏ g

RESULT 164

```
888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for etimulating the proliferation or differentiation of chondrocyte cells and a method for celecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as colon probes, in chromosome and gene mapping, in generating cantisense RNA and DNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful candidate, such as tumours, for stimulating proliferation of mumoravascular endothelial cells, for modulating the uptake of colucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating ether proliferation of adipocyte cells, for stimulating continuating differentiation of adipocyte cells, for stimulating continuation of adipocyte cells, for stimulating continuation of inner ear utricular supporting cells, for inducing endothelial cell tumbe formation and for treating
                                                                                                                                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; ling; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarchritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G.
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 12; Fig 474; 637pp; English
                        ADD02109 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-UTM-1999; 99WO-US012252.
30-WAR-2000; 2000US-00380137.
30-MAR-2000; 2000WO-US008439.
01-DEC-2000; 2000WO-US08438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-APR-2002; 2002US-00128685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0096143P
                                                                                                                                               Human PRO polypeptide #237
                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2003-875637/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-8/202108,
N-PSDB; ADD02108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                US2003203430-A1.
                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-AUG-1998;
                                                                                                          15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-OCT-2003
                                                                  ADD02109;
```

```
Human; secreted and transmembrane protein; PRO; Jumour necrosis factor alpha release; TWF-alpha release; glucose uptake modulator; PFA uptake modulator; cell proliferation stimulator; cell differentiation stimulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; club tumour; colo tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                     ö
various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinmas obsociated disorders such as various thalmssaemas and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                                                           09
                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              i.
                                                                                                                                                                                                                                                                                                                                                          1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                           1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention describes 305 nucleic acids encoding PRO (secreted and
                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Filvaroff E, Gao
AL, Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PR01114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.
                                                                                                                                                                                                                                                                                       .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            esini M, Deforge L, Desnoyers L, Filvarc
Goddard A, Godowski PJ, Gurney AL, Sher
art TA, Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAARAGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; SEQ ID NO 474; 637pp; English.
                                                                                                                                                                           USPTO at segdata.uspto.gov/seguence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD54291 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAY-2002; 2002US-00142886.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-875639/81.
                                                                                                                                                                                                                                N-PSDB; ADD54290.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003203432-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen ME,
                                                                                                                                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADD54291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD54291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

```
98US-0075945P

98US-007891DP

98US-0081212P

98US-0087603P

98US-0087603P

98US-0087603P

98US-0087603P

98US-0088021P

98US-0088022P

98US-0088023P

98US-0088023P

98US-0088023P

98US-0088023P

98US-0088023P

98US-0088023P

98US-0088024P

98US-008812P

98US-008812P

98US-008812P

98US-008812P

98US-008814P

98US-008851P

98US-008851P

98US-008851P

98US-008851P

98US-008951P

98US-008951P

98US-008951P

98US-008951P

98US-008951P

98US-008951P

98US-008951P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019437.
98WO-US021141.
98WO-US025108.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0089908P.
98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US000106
99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US003565
2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0089801P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0089907P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-FEB-2000;
                                                                                                                            1998;
                                                                                                                                                      1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                         12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .6-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JUN-1998;
                                                                                                                                                                    1998;
                                                                                                                                                                                                          04-JUN-1998;
                                                                                                                                                                                                                          04-JUN-1998
                                                                                                                                                                                                                                     04-JUN-1998;
                                                                                                                                                                                                                                                  05-JUN-1998;
                                                                                                                                                                                                                                                                05-JUN-1998
                                                                                                                                                                                                                                                                           05-JUN-1998
                                                                                                                                                                                                                                                                                                                      10-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                    ,8661-NUL-01
                                                                                                                                                                                                                                                                                                                                                                                                               11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                             11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .6-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-1999
16-DEC-1999
                                                                      28-MAY-1998;
                                                                                                              02-JUN-1998
                                                                                                                                         04-JUN-1998
                                                                                                                                                                                                                                                                                                      09-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-1999
                                                        07-MAY-1998
                                                                                   02-JUN-1998
                                                                                                 02-JUN-1998
                                                                                                                                                                    04-JUN-
                                                                                                                                                                                             04-JUN-
                                                                                                                              Ę
                                                                                                                                                      04-JUN-
    transmembrane) polypeptides (I). (I) is useful for stimulating the crelease of TNR-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner are utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating of acytokine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the binding of cells, for stimulating proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. FRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome cor and gene mapphing, in generation of antisense RNA and DNA, in the cynockout animals which in turn are useful in the development and conforming of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome arker, and for generating correcting its expression in specific cells, tissues or serum, and for affinity purification of a novel human secreted and transmenbrane PRO conversed and erransmence of a novel human secreted and transmented proper and conformatide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTXAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, PRO, pancreatic beta-cell precursor cell, pancreatic beta-cell, insulin deficiency, diabetes mellitus, haemoglobin-associated disorder, thalassaemia, endothelial cell growth, cancer, cystic renal dysplasia; polycystic kidney disease, renal tumour, antidiabetic, antianaemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cytostatic; cardiant; vulnerary; antiinflammatory; anorectic.
                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADD54746 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-00497B7P.
97US-0062250P.
97WO-US020069.
97US-0065186P.
97US-0065311P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-NOV-2001; 2001US-00991163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human PRO polypeptide #118.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2002132253-A1
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-OCT-1997;
05-NOV-1997;
12-NOV-1997;
13-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-SEP-2002.
                                                                                                                                                                                                                                                                                                                                                                          polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADD54746;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     %XGGGGGGGGGGGGGGGGGGGGGGGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

Human PRO polypeptide #237

29-JAN-2004 (first entry)

```
New PRO polypeptides and nucleic acid molecules, useful in gene therapy, or in diagnosing or treating inflammatory diseases, diabetes, cancer, rheumatoid arthritis, ulcers, amyotrophic lateral sclerosis or septic
                                                                                                                                                                        Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                  Claim 12; SEQ ID NO 377; 658pp; English.
                                  2000WO-US022031.
2000WO-US023522.
2000WO-US023328.
                                                              2000WO-US030952.
                                                                                  2001WO-US006520
                                                                                             2001WO-US017800.
                                                                                                        2001WO-US019692.
                                                                                                               2001WO-US021066.
                                                                                                                            09-JUL-2001; 2001WO-US021735.
28-AUG-2001; 2001US-00941992.
                                                                            2000WO-US032678
                                                                                                                          2001WO-US021735
                                                                                                                                                        (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                       WPI; 2003-695825/66
                                                                                                                                                                                                                                                 N-PSDB; ADD54745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 90 AA;
                                                                                                01-JUN-2001;
20-JUN-2001;
                                                        24-AUG-2000;
08-NOV-2000;
                                                                                    28-FEB-2001;
                            28-JUL-2000;
                                      11-AUG-2000;
                                                23-AUG-2000;
                                                                            01-DEC-2000;
                                                                                                                  29-JUN-2001;
                                                                                                                                                                                                                     Zhang
```

Godowski PJ; Paoni NF; Wood WI;

Eaton

```
The invention relates to human PRO polypeptides and the polynucleotides canceding them. The sequences are useful for inducing differentiation of encoding them. The sequences are useful for inducing differentiation of parcreatic beta-cells, parcreating states in mammals, and thus for treating various insulin deficient states in mammals, including diabetes mellitus. The sequences are also useful for treating condessive endothelial cell growth e.g., inhibiting tumour growth, oystic creal dysplasia, polycystic kidney disease and renal tumours. The creal dysplasia, polycystic kidney disease and renal tumours. The colypeptides are useful for tissue typing, as molecular weight markers of polypeptides are useful in gene herapeutic agents and as crecombinantly expressing molecular weight markers, in chromosome identification combinantly expressing molecular weight markers, in chromosome and generation of anti-sense RNA and in preparation con mapping, in the generation of anti-sense RNA and in preparation coff RNO polypeptides by recombinant techniques. This sequence represents a command of the invention. Note: The sequence represents a command of the invention. Note: The sequence represents a command of the invention. Note: The sequence represents a companion of the sequence represents a companion of the invention. Note: The sequence represents a companion of the invention. Note: The sequence represents a companion of the invention. Note: The sequence represents a companion of the invention. Note: The sequence represents a companion of the invention. Note: The sequence represents a companion of the invention. Note: The sequence represents a companion of the invention. Note: The sequence represents and the sequence of the invention of the sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MTFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           염
```

90

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

AA.

ADD92608 standard; protein; 90

RESULT 167

ADD92608

ADD92608;

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

ð

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, in molecular biology, including uses as polymuclectides are useful in molecular biology, including uses any bybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymuclectides may also antisense RNA and DNA and in gene therapy. The polymuclectides may also cantisense the proposed of the polymerical which are useful in the development and screening of therapeutically useful useful to the propophile of the reagents. The RNO polymerical animals or knock-out animals which are medicament for treating a condition responsive to the polymerides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular mental colls and an expensive of the uptake of the polymerides of the polymerides of the polymerides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalsesaemias and conditions which may benefit from enhanced local immune system cell infiltration. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone
                                                                                                       Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA, skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder: cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; reumatoid arthritis; enemglobin-associated disorder thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Filvaroff E, C. Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Deforge L, Desnoyers L, Filvar A, Godowski PJ, Gurney AL, She Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; SEQ ID NO 474; 636pp; English.
                                                                                                                                                                                                                                                                                                                                             immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US03267B.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-MAY-2002; 2002US-00156841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-900159/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ADD92607.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003199030-A1
                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-OCT-2003.
```

```
2001US-00860216.
2001US-00866028.
2001US-00866034.
2001US-008672035.
2001US-00872035.
2001US-00874503.
2001US-00874503.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00924419.
2001US-00927796.
2001US-00931836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00802706.
2001US-00808689.
2001US-00816744.
2001US-00828366.
2001US-00854208.
                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US030952.
2000WO-US030873.
2000WO-US032678.
                                                                                           99WO-US028565.
99WO-US030095.
99WO-US030911.
99WO-US030999.
99WO-US031243.
                                             99WO-US028409.
99WO-US028301.
99WO-US028634.
99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US019692
2001US-00887879
                                                                                                                                                                                                                                                                                                                2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US034956
2001US-00796498
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001WO-US006520
2001WO-US006666
                                                                                                                                                                                                                                      2000WO-US005004.
2000WO-US005601.
2000WO-US005746.
                                                                                                                                                                                                                                                                                                                                     000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                         2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                  000WO-US023328
                                                                                                                                                              2000WO-US000219.
                                                                                                                                                                                                                                                                                     000WO-US007377
                                     99WO-US028313
                                                                                                                                                     99WO-US031274
                                                                                                                                                                                2000WO-US000376
                                                                                                                                                                                                  2000WO-US004341
                                                                                                                                                                                                            2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-2000;
20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
                                                                                                                                                             05-JAN-2000;
06-JAN-2000;
11-FBB-2000;
18-FBB-2000;
18-FBB-2000;
22-FBB-2000;
24-FBB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                     30-MAY-2000;
                                                                                                               20-DEC-1999;
20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
15-SEP-1999;
15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                           08-NOV-2000;
 sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; starcovascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                               9
                                                                                                                 9
                                                                                                         MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                              .
                                                         100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; tive 0; Mismatches 0; Indels
                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                      ADD91504 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US024855.
98WO-US025108
99WO-US0050106.
99WO-US0051319.
2000WO-US0051319.
99WO-US00615.
99WO-US010815.
99WO-US020594.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US018824.
98WO-US019093.
98WO-US019094.
98WO-US019177.
98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US022991.
                                                                                                                                                                                                                                                                                                                                                                                                                                            12-APR-2002; 2002US-00121063
                                                                                                                                                                                                                                                             Human PRO polypeptide #237
                                                                                                                                                                                                                                            29-JAN-2004 (first entry)
                                                                               90; Conservative
                                                         Query Match
Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                          US2003199055-A1.
                                          Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-MAR-1999;
10-MAR-1999;
10-MAR-1999;
14-MAY-1999;
14-MAY-1999;
01-SEP-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-JUN-1998;
14-JUL-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
29-OCT-1998;
29-OCT-1998;
20-OCT-1998;
20-OCT-1998;
20-OCT-1998;
20-OCT-1998;
20-OCT-1998;
20-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                           23-OCT-2003
                                                                                                                                                                                                                           ADD91504;
                                                                                                                                       61
                                                                                                                                                          61
                                                                                                                                                                                       RESULT 168
                                                                                                                                                                                              à
                                                                                                                  엄
                                                                                                                                         ਨੋ
                                                                                                                                                        셤
```

```
61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                             ADE04118 standard; protein; 90 AA
                                                                                                                                                      29-JAN-2004
                                                                                                                                                  ADE04118;
                                                                                                                               61
        Baker KP,
            Smith V,
                                                                                                                                          RESULT 169
                                                                                                                                            ADE04118
SXXXE
                                                                                                                       ð
                                                                                                                           g
                                                                                                                               ò
```

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

(first entry)

```
tumour necrosis factor-alpha: TNR-alpha: chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; skeletal muscle cell; adipocyte cell; pericyte cell; skeletal auscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; aartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide;
                 Human PRO polypeptide #237,
                                                                                                                                                                                                                                                                                                                                                                        US2003199057-A1
                                                                                                                                                                                                                                                                                                                                                                                                                    23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-OCT-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-DEC-
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The transmembrane polypeptides an antibody which specifically binds to a PRO colypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as in chromosome and gene mapping, in generating continuous probes, in chromosome and gene mapping, in generating continuous and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animmals or knock-out animmals which are usedul in the development and screening of therapeutically useful continuous such as tumours, for stimulating are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating collisation for gene expression in pericyte cells, for stimulating collisation for cartilage disorders such as sports injuries and arthiris. PRO polypeptides which stimulate the release of proteoglycans or arthiris and rhenmatoid arthiris and archirate contents and release of joint problems.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemas and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                        Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                            Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                          Deforge L, Desnoyers L, Filvaroff E, G. A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                            claim 12; SEQ ID NO 474; 636pp; English.
    19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity luv..
Best Local 90; Conservative
                                                                                                   Beresini M,
ME, Goddard
                                                     (GETH ) GENENTECH INC.
                                                                                                                                                  Stewart TA,
                                                                                                                                                                                                WPI; 2003-900165/82.
                                                                                                                                                                                                                        N-PSDB; ADD91503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                              Gerritsen ME,
```

```
99WO-US028313.
99WO-US028409.
99WO-US028301.
99WO-US028634.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US028551.
99WO-US028564.
99WO-US028565.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US004914
2000WO-US005004
                                                                                                                                                                                                                                                  99WO-US005190.
2000WO-US006319.
                                                                                                                                                                                                                                                                            99WO-US008615.
                                                                                                                                                                                                                                                                                           99WO-US010733
                                                                                                                                                                                                                                                                                                      99WO-US012252
                                                                                                                                                                                                                                                                                                                     99WO-US020111.
                                                                                                                                                                                                                                                                                                                                99WO-US020594.
                                                                                                                                                                                                                                                                                                                                            99WO-US020944
                                                                                                                                                                                                                                                                                                                                                          99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                      99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                  99WO-US023089.
                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US030999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US000277
                                                                                                                                                                                                           98WO-US025108
                                                                                                                                                                                                                         99WO-US000106
                                                                                                                                                                                                                                       99WO-US00502B
                                                                                                                                              98WO-US019437
                                                                                                                                                                                    98WO-US022992
15-APR-2002; 2002US-00123213
                                                                              98WO-US018824
                                                                                          98WO-US019093
                                                                                                         98WO-US019094
                                                                                                                  98WO-US019177
                                                                                                                                98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             666
                                                                                                                                                                                                                                                               10-MAR-1999;
                                                                                                                                                                                                                            16661
                                                                                                                                                                                                                                       08-MAR-1999;
                                                                                                                                                                                                                                                                              20-APR-1999
                                                                                                                                                                                                                                                                                           14-MAY-1999;
                                                                                                                                                                                                                                                                                                        02-JUN-1999;
                                                                                                                                                                                                                                                                                                                     01-SEP-1999
                                                                                                                                                                                                                                                                                                                                 08-SEP-1999
                                                                                                                                                                                                                                                                                                                                                           15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                      5-SEP-1999
                                                                                                                                                            17-0CT-1998,
                                                                                                                                                                                                             01-DEC-1998
                                                                              10-SEP-1998
                                                                                                                     14-SEP-1998
                                                                                                                                                                                    29-OCT-1998
                                                                                                         14-SEP-1998
                                                                    28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-DEC-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
```

```
2001WO-US017800.
2001US-00874503.
2001US-00882636.
                                                                                                                                                                                                                                                                                                       09-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00908827.
06-AUG-2001; 2001US-00924419.
                                                                                                                                                                               2001US-00816744.
                                                                                                                                                                                                      2001US-00854280.
                                                                                                                                                                                                            2001US-00860216.
2001US-00866028.
                                                                                                                                                                                                                          2001US-00866034.
                                                                                                                                                                                                                                2001WO-US017092.
                                                                                                                                      2000WO-US034956.
                                                                                                                                            2001US-00796498
                                                                                                                                                          2001WO-US006666
                                                                                                                                                                  2001US-00802706
                                                                                                                                                                         2001US-00808689.
                                                                                                                                                                                             2001US-00854208
                                                                                                                                                                                                                                                                    2001US-00886342
                                                                                                                                                                                                                                                                             2001WO-US019692
                                                                                                                                                                                                                                                                                   2001US-00887879
                                                                                                                                                                                                                                                                                          22-JUN-2001; 2001WO-US020116
29-JUN-2001; 2001WO-US021066
                                                                                                                                                                                                                                                                                                                             09-AUG-2001; 2001US-00927796
                                                                                                                                                                                                                                                                                                                                    16-AUG-2001; 2001US-00931836
19-DEC-2001; 2001US-00028072
                                                        2000WO-US014042
                                                                                                                2000WO-US030873
                                                                                                                               2000US-00747259
                                                                                                                                                                                                                                                01-JUN-2001;
05-JUN-2001;
14-JUN-2001;
19-JUN-2001;
                                                                                                                                                                                                                                                                             20-JUN-2001;
                                                                                                                                                                                                                                                                                    21-JUN-2001;
                                                                                                                                                                                                      10-MAY-2001;
18-MAY-2001;
                                                                                                                                                                                                                           25-MAY-2001;
                                                                                                                                                                                22-MAR-2001;
05-APR-2001;
                                                                                                                                                                                                10-MAY-2001;
                                                                                                                                                    28-FEB-2001;
                                                                                                                                                                   09-MAR-2001;
                                                                                                                                                                          14-MAR-2001;
                           20-MAR-2000;
                                                17-MAY-2000;
                                                                                    11-AUG-2000;
                                                                                            23-AUG-2000;
                                                                                                   24-AUG-2000;
                                                                                                          08-NOV-2000;
                                                                                                                10-NOV-2000;
                                                                                                                        01-DEC-2000;
                                                                                                                                20-DEC-2000;
                                                                                                                                             28-FEB-2001;
                                                                                                                                                           01-MAR-2001
                                                               30-MAY-2000
                                                                       02-JUN-2000
                                                                                                                                                                                                                    25-MAY-2001
                                                                                                                                                                                                                                   25-MAY-200
```

(GETH) GENENTECH INC.

Gao Deforge L, Desnoyers L, Filvaroff E, G. A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, De ME, Goddard A, Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-900167/82. N-PSDB; ADE04117.

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis. Claim 12; Fig 474; 637pp; English.

transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the prediteration or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, unug, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as The invention relates to isolated human PRO polypeptides (secreted and

```
hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development animals or knock-out animals which are useful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development or antibodies, such as tumours, for stimulating and inhibiting proliferation of antibodies, such as tumours, for stimulating and inhibiting proliferation of proliferation of adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating collieration of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating cells, for inducing endothelial cell tube formation and for treating carthritis. PRO polypeptides which stimulate the release of protecopycans arthritis. PRO carthritis, PRO polypeptides which stimulate the release of protecopycans critiage are useful for treating sports-related joint problems, collypeptides are also useful for treating various mammalian haemod-obin-associated disorders such as various thalassaemias and conditions which may benefit from enhanned local immune system cell inflitzation. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from collyperities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQFTQSSLEDSVTFTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human; secreted and transmembrane protein; PRO; nootropic; neuroprotective; antiparkinsonian; cytostatic; gane therapy; chromosome mapping; gene mapping; transgenic animal; knock-out animal; neurodegenerative disorder; Parkinson's disease; Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Preu. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE26900 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0049787P.
97US-0062250P.
97WS-0065186P.
97US-006511.P.
97US-006531.P.
98US-0075945P.
98US-0078910P.
98US-0084302P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003087304-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-NOV-1997;
25-FEB-1998;
20-MAR-1998;
28-APR-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-OCT-1997
05-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADE26900;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 170
ADE26900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88888888888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

US-0087106P US-0087607P US-00877609P US-0087759P US-0080821P US-0088025P US-0088028P US-0088029P US-0088030P US-0088030P US-0088030P US-0088030P US-0088030P US-0088030P	UIS-00882175 UIS-00882175 UIS-00887384 UIS-00887428 UIS-00887428 UIS-00887384 UIS-00888618 UIS-00888618 UIS-00888618 UIS-00888618 UIS-0088768	98US-0090244P. 98US-0090349P. 98US-0090443P. 98US-0090443P. 98US-0090444P. 98US-0090444P. 98US-0090444P. 98US-0090542P. 98US-0090542P. 98US-0090542P. 98US-0090542P. 98US-0090542P. 98US-0090542P. 98US-009064P. 98US-009069P. 98US-009169P. 98US-009169P. 98US-009169P.
28 - MAY - 1998 02 - JUN - 1998 02 - JUN - 1998 02 - JUN - 1998 04 - JUN - 1998	05-50M-1998 10-50M-1998 10-50M-1998 10-50M-1998 11-50M-1998 11-50M-1998 11-50M-1998 12-50M-1998 14-50M-1998 15-50M-1998 17-50M-1998 17-50M-1998 17-50M-1998 17-50M-1998 17-50M-1998 17-50M-1998 17-50M-1998 18-50M-1998	PR 22-UN-1998; PR 23-UN-1998; PR 24-UN-1998; PR 25-UN-1998;

98US-0091673F.
98US-0091978F.
98US-0091382F.
98US-0092482F.
98US-0092482F.
98US-0092482F.
98US-009532DF.
98US-009532DF.
98US-0095321F.
98US-009659F.
98US-0097978F.
98US-0097978F.
98US-0097978F.
98US-0097978F.
98US-0097978F.
98US-0097978F.
98US-019659F.
98US-019659F.
98US-019659F.
98US-019659F.
98US-01329F.
98US-01329F.
98US-01330.
98US-014328F.
99US-014328F.
99US-014569F.
99US-014569F.
99US-014569F.
99US-014563813.
99WO-US028131.

02-JUL-1998; 07-JUL-1998; 07-JUL-1998; 10-JUL-1998; 10-JUL-1998; 10-JUL-1998; 04-AUG-1998; 04-AUG-1998; 04-AUG-1998; 04-AUG-1998; 11-AUG-1998; 11-AUG-1999; 11-SEP-1999; 11-DEC-1999;

```
29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADE22347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE22347
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             glucose uptake modulator; FFA uptake modulator; cell proliferation stimulator; cell differentiation stimulator; cell differentiation stimulator; cold differentiation inhibitor; cytokine release stimulator; tumour; lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; ilver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gao W;
                                                                                                                                                                                                                                                                                                       MTFFLSLLLLLVCEAIWRSN3GSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                           1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gr
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                  Length 90;
                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human, secreted and transmembrane protein, PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                  100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                          ADE32415 standard; protein; 90 AA.
                                                                                                             30-MAR-2000; 2000MO-US008439.

17-MAY-2000; 2000MO-US01358.

17-MAY-2000; 2000MO-US013705.

22-MAY-2000; 2000MO-US014042.

03-MAY-2000; 2000MO-US014941.

02-JUN-2000; 2000MO-US015264.

23-JUN-2000; 2000WS-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                               2000WO-US006319.
2000WO-US006884.
2000WO-US007377.
                                                                                                                                                                                      28-JUL-2000; 2000WO-US020710.
11-AUG-2000; 2000WO-US022031.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAY-2002; 2002US-00142889
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                      90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003194765-A1
                                      22-FEB-2000; 2
24-FEB-2000; 2
24-FEB-2000; 2
02-MAR-2000; 2
10-MAR-2000; 2
15-MAR-2000; 2
                                                                                                                                                                                               11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                   24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                               ADE32415;
                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                      RESULT 171
                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                              ADE324:
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                           à
```

```
The invention describes 305 mucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the craims of training the properties of TWI-alpha from human blood, for modulating the uptake of glucose or FPA by skeletal muscle cells or adipocyte cells, for glucose or FPA by skeletal muscle cells or adipocyte cells, for continulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating the proliferation of Inner ear utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, prostate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polynucleotide (II) encoding (I) is useful in chromosome identification, as chromosome marker, and for generating or probes. An anti-(I) antibody is useful in diagnostic assays for PRO, ergetecting its expression in specific cells, tissues or serum, and for chromosome identification of PRO from recombinant cell culture or natural sour acid sequence of a novel human secreted and transmembrane PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                       Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; PRO; secreted polypeptide; transmembrane polypeptide;
tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
liver; microvascular endothalial cell; glucose; FFA;
skeletal muscle cell; adipocyte cell; pericyte cell;
inner ear utricular supporting cell; Tymphocyte cell;
endothalial cell tube formation; bone disorder; cartilage disorder;
sports injuxy; proteoglycan; articular cartilage defect; osteoarthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLILLLIVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 462; DB 7; Length 90; Best Local Similarity 100.0%; Pred. No. 9.8e-49; Matches 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                    Claim 12; SEQ ID NO 474; 636pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE22347 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
WPI; 2003-899784/82.
                                 N-PSDB; ADE32414.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 90 AA;
```

```
rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US014941
2000WO-US015264
                                                                                                                                                                                                                                                                                                                                 8409.
                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030911.
                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030720.
99WO-US031243.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US005601
2000WO-US005746
                                                                                                                                                                                                                          99WO-US005190.
2000WO-US006319.
                                                                                                                                                                                                                                                                                                                                         99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                8564
                                                                                                                                                                                                                                                                                                                                                                        99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                                99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US004914
                                                                                                                                                                                                                    99WO-US00502B
                                                                                                                                                                                                                                            99WO-US008615
                                                                                                                                                                                                                                                           99WO-US012252
                                                                                                                                                                                                                                                                  99WO-US020111
                                                                                                                                                                                                                                                                                                                          99WO-US028313
                                                                                                                                                      98WO-US019330
                                                                                                                                                                                                    98WO-US025108
99WO-US000106
                                                                                                                                                                                                                                                                           99WO-US020594
                                                                                                                                                                                                                                                                                                  99WO-US021547
                                                                                                                                                                                                                                                                                                                 99WO-US028214
                                                                                                                      98WO-US018824
98WO-US019093
                                                                                                                                                              9BWO-US019437
                                                                                                                                                                                     98WO-US022992
                                                                                                                                                                                             98WO-US024855
                                                                       2002US-00123212
                                                                                                                                                                                                                                                                                          99WO-US02
                                                                                                                                                                                                                                                                                                                                                 99WO-US02
                                                                                                                                                                                                                                                                                                                                 30KO-US0
                                                                                                                                                                                                                                                                                                                                                              99WO-US0
                                                                                                                                                                                                                                                                                                                                                         99WO-US0
                                                                                                                                                                                                                                                                                                           99WO-US
                                         US2003199056-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                     06-JAN-2000; 20
06-JAN-2000; 21
11-FEB-2000; 20
18-FEB-2000; 20
22-FEB-2000; 20
24-FEB-2000; 20
14-FEB-2000; 20
02-MAR-2000; 20
02-MAR-2000; 20
02-MAR-2000; 20
02-MAR-2000; 20
02-MAR-2000; 20
15-MAR-2000; 20
                                                                                                                                                                                                                                                                                                                                                                                              20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                            10-MAR-1999;
10-MAR-1999;
20-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                        02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
                                                                        15-APR-2002;
                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                 30-NOV-1999
01-DEC-1999
                                                                                                                                                                                                                                                                                                                                                         02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                 02-DEC-1999
                                                                                                                                                                                                                                                    14-MAY-1999
                                                                                                                                                                                                                                                                    01-SEP-1999
                                                                                                                                                                                                                                                                                  13-SEP-1999
15-SEP-1999
                                                                                                                                                                                                                                                                                                   LS-SEP-1999
                                                                                                                                                                                                                                                                                                                  29-NOV-1999
                                                                                                                                       L4-SEP-1998
                                                                                                                                                                                                                                                            02-JUN-1999
                                                                                                                                                                                                                                                                                                           05-0CT-1999
                                                                                                12-JUN-1998
                                                         23-OCT-2003
                                                                                                                                                                                                                                                                                                                            30-NOV-1
```

```
transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis actor-alpha (TNP-alpha) from human blood, a method for stimulating the properties of a tumour and method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostete, rectal, kidney, cervical and liver tumours). The proliferation probes, in chromosome and gene mapping, in generating hybridisation probes, in chromosome and gene mapping, in generating colon, breast, and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in the development and screening of therapeutically useful a reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating and stimulating cells, for stimulating cells, for stimulating and stimulating and stimulating and stimulating and stimulating and stimulating cells, for stimulating cells, for stimulating cells, for stimulating cells, for stimulating and stimulating and cells, so the second cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to isolated human PRO polypeptides (secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Fig 474; 638pp; English
                                                                                                                                                                                                                                                                                                               10-MAY-2001; 2001US-00854280.

18-MAY-2001; 2001US-00860216.

25-MAY-2001; 2001US-0086038.

25-MAY-2001; 2001US-00866034.

25-MAY-2001; 2001US-00866034.

01-UNS-2001; 2001US-00872035.
                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-2001; 2001US-00872035.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00874503.
2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US020116.
2001WO-US021066.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00908827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001WO-US021735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-DEC-2001; 2001US-00028072
                                                                         2000WO-US030952.
2000WO-US030873.
2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US019692
                                      2000WO-US023522.
2000WO-US023328.
                                                                                                                                                                                                                         2001US-00802706
2001US-00808689
                                                                                                                                                                                                                                                                2001US-00816744
2001US-00828366
                                                                                                                                  2000US-00747259
                                                                                                                                                     2000WO-US034956
                                                                                                                                                                                      2001WO-US006520
                                                                                                                                                                                                            2001WO-US006666
                                                                                                                                                                                                                                                                                                     2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Baker KP, Beresini M, L
Gerritsen ME, Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-900166/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ADE22346
28-JUL-2000; 2
23-AUG-2000; 2
23-AUG-2000; 2
28-AUG-2000; 2
08-NOV-2000; 2
10-DEC-2000; 2
20-DEC-2000; 2
20-DEC-2000; 2
28-PEB-2001; 2
28-PEB-2001; 2
19-MAR-2001; 2
19-MAR-2001; 2
10-MAY-2001; 2
10-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JUN-2001;
20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-JUN-2001;
29-JUN-2001;
```

3

Gao

as lung, colon, breast, prostate, rectal, cervical and/or liver

```
proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence capresents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from the USPIO website at sequata.uspto.gov.
```

Sequence 90 AA;

```
ö
                                                                        9
                                                                                                           9
                                                                        1 MIFFLSLLLLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                         1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                      0; Gaps
 Length 90;
100.0%; Score 462; DB 7; Length 90. 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                               GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                   Local Similarity 100.
ses 90; Conservative
 Query Match
                                                                                                                                                 61
                                                                          ò
                                                                                                           g
                                                                                                                                               ŏ
```

ADD79571 standard; protein; 90 (first entry) 29-JAN-2004 ADD79571; RESULT 173

tumour necrosis factor-alphs, TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. Human; PRO; secreted polypeptide; transmembrane polypeptide; Human PRO polypeptide #237.

Homo sapiens

US2003203428-A1.

30-OCT-2003.

22-APR-2002; 2002US-00127852.

09-DEC-1999; 99US-0170262P. 01-DEC-2000; 2000WO-US03267B. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Gao Beresini M, Deforge L, Desnoyers L, Filvaroff E, G ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Gerritsen Smith V, Baker KP,

3

2003-875635/81.

N-PSDB; ADD79570.

New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors,

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the prosence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as plynucleotides are useful in molecular biology, including uses as colon, breast, probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO POLYPEPTIGES or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of inner ear unficular supporting cells, for stimulating proliferation of inner ear unficular supporting cells or T-lymphocyte cells, for stimulating coliferation of inner ear unficular supporting cells or T-lymphocyte cells, for arthitis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, received anticular and confices are also useful for treating various mammalian haemoglobing articular and sociated disorders such as various thalassemias and conditions. Note: The sequence represents a human PRO polypeptide of the invention. This sequence data for this patent is also available of the inventure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endcthelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; PRO; secreted polypeptide; transmembrane polypeptide;
tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
liver; microvascular endothelial cell; glucose; FRA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the USPTO website at seqdata.uspto.gov.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADE42107 standard; protein; 90 AA.
                                                                  Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE42107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADE42107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

```
Gerritsen ME, Goddard
Smith V, Stewart TA,
                          (GETH ) GENENTECH INC
                                        N-PSDB; ADE42106
                                                                                                                         Sequence 90 AA;
       JS2003194772-A1
    Homo sapiens.
           16-OCT-2003.
```

```
tumour necrosis factor-alphs, TNF-alphs, chondrocyte cell, tumour, cancer, adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothalial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothalial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                           Human; PRO; secreted polypeptide; transmembrane polypeptide;
                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                              ADE17924 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US012537
98WO-US021141.
98WO-US022991.
98WO-US022992.
98WO-US024855.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-US025108.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US005190.
2000WO-US006319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-APR-2002; 2002US-00124821.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US021090
99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US030095
99WO-US030911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US030999
                                                                                                                                                                                                                                                                                                            Human PRO polypeptide #237.
                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003199023-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                             29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-MAR-1999;
10-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1999
                                                                                                                                                                                                                ADE17924;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-OCT-19
20-NOV-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-19
05-JAN-19
                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-NOV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-MAY-
                                                                                                                                          ADE17924
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an artibody which specifically binds to a PRO polypeptide; a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the prosition or differentiation of chondrocyce cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also comerating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful cangents. The PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful cangents. The PRO polypeptides or antibodies are useful are condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of or gene expression in periover cells, for stimulating officeration of adipocyte cells, for stimulating the proliferation of cartilage cells cells or adipocyte cells, for stimulating che proliferation of cartilage disorders such as sports injuries and arthritis and arthritis and arthritis and arthritis and arthritis and are resetul for treating sports-related joint problems, arthritis. PRO polypeptides which stimulate the release of proteoglycans are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions when a various thalassaemias and conditions when the relation of the proliferation of immer ear utricular cartilage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MIPFLSLLILLLVCBAIMRSNSGSNTI.BNGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                    Gao
                                                                                                                                                                                                                                                                                                                                                                               Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence data for this patent is also ava
USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12; Fig 474; 637pp; English.
immune system cell infiltration.
                                                                                                                                                                                                                                    03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                       21-MAY-2002; 2002US-00152386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                               Baker KP, Beresini M,
Gerritsen ME, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-899788/82.
```

Claim 12; SEQ ID NO 474; 637pp; English.

```
28-FEB-2001; 2001WO-US006660.
01-MAR-2001; 2001WO-US006660.
03-MAR-2001; 2001WG-US006660.
14-MAR-2001; 2001US-00802806.
15-MAR-2001; 2001US-00808689.
22-MAR-2001; 2001US-00816744.
10-MAY-2001; 2001US-00854280.
110-MAY-2001; 2001US-00866216.
25-MAY-2001; 2001US-00866034.
25-MAY-2001; 2001US-00866034.
25-MAY-2001; 2001WG-US017092.
01-JUN-2001; 2001WG-US017092.
01-JUN-2001; 2001WG-US017092.
01-JUN-2001; 2001WS-00872035.
01-JUN-2001; 2001WS-00874503.
                                                                                                                                                                                                22-FM1 2000, 2000MO-US014941.
28-JUL-2000, 2000MO-US014941.
28-JUL-2000, 2000MO-US015264.
23-AUG-2000, 2000MO-US023522.
23-AUG-2000, 2000MO-US023522.
34-AUG-2000, 2000MO-US023328.
08-NOV-2000, 2000MO-US030873.
10-NOV-2000, 2000MO-US030873.
20-DEC-2000, 2000MO-US0326678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-JUN-2001; 2001WO-US020116.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US027735.
18-JUL-2001; 2001US-00908827.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-2001; 2001US-00886342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-JUN-2001; 2001WO-US019692
21-JUN-2001; 2001US-00887879
                                                                                                                                                                                                                                                                                                           28-FEB-2001; 2001US-00796498
                            2000WO-US000219
                                     2000WO-US000277
                                             2000WO-US000376.
                                                                 2000WO-US004341
                                                                                                                         2000WO-US005746
                                                                                                                                           2000WO-US006884
                                                                                                                                                                                           2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC
                                                                                                                       02-MAR-2000;
02-MAR-2000;
15-MAR-2000;
20-MAR-2000;
21-MAR-2000;
                                                        11-FEB-2000;
                                                                                                                                                                        30-MAR-2000;
17-MAY-2000;
                                     06-JAN-2000;
                                                                                                                                                                                           22-MAY-2000
```

JSPTO at segdata.uspto.gov/sequence.html

Sequence 90 AA;

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis and excor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and inventumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses a hybridisation probes, in chromosome and gene mapping, in generating colon, present of preparing Propolymucleotides may also can useful in the development and screening of therapeutically useful case in the RPO polypeptides by recombinant techniques and in casents. The PRO polypeptides or antibodies are used in preparing a constitution of therapeutically useful case in the RPO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies are used in preparing of theman microvascular endothelial cells, for modulating the uptake of glucose or PRA by skelectal muscle cells, for stimulating differantiation of adipocyte cells, for stimulating colon finance are urricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating contributes and arthrities PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, cartilage are useful for treating sports-related disorders such as various branches and conditions which cartilage are useful for treating various paraious mammalian hemoglobin. The c

g $\stackrel{>}{\circ}$ g Gao W; Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G: Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

WPI; 2003-900155/82. N-PSDB; ADE17923

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; carliage disorder; sports injury; proteoglycan; articular cartilage defect; osteoathritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. 1 MIFFLSLLLLLVCBAIWRSNSGSNTLBNGYFLSRNKBNHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 0; Gaps 100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 ADD92056 standard; protein; 90 AA. Human PRO polypeptide #237 29-JAN-2004 (first entry) 90; Conservative Query Match Best Local Similarity Matches 90; Conserv ADD92056; ò

```
24-FEB-2000; 2000WO-US005004.
01-MAR-2000; 2000WO-US005601.
02-MAR-2000; 2000WO-US005841.
15-MAR-2000; 2000WO-US005841.
20-MAR-2000; 2000WO-US005884.
20-MAR-2000; 2000WO-US005884.
21-MAR-2000; 2000WO-US00532.
31-MAR-2000; 2000WO-US00532.
31-MAY-2000; 2000WO-US013705.
22-MAY-2000; 2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                   99WO-US030999.
99WO-US030720.
99WO-US031243.
                                                               97WO-US005230.
98WO-US012456.
98WO-US014552.
                                                                                                                                98WO-US019330.
98WO-US019437.
                                                                                                                                                  98WO-US021141.
                                                                                                                                                                          98WO-US024855.
                                                                                                                                                                                                           99WO-US005190
                                                                                                                                                                                                                         99WO-US008615.
                                                                                                                                                                                                                                   99WO-US010733
                                                                                                                                                                                                                                         99WO-US012252.
                                                                                                                                                                                                                                                    99WO-US020111
                                                                                                                                                                                                                                                          99WO-US020594
                                                                                                                                                                                                                                                                  99WO-US020944
                                                                                                                                                                                                                                                                           99WO-US021090
                                                                                                                                                                                                                                                                                   99WO-US021547.
                                                                                                                                                                                                                                                                                            99WO-US023089.
                                                                                                                                                                                                                                                                                                            99WO-US028313
                                                                                                                                                                                                                                                                                                                    8409.
                                                                                                                                                                                                                                                                                                                             8301
                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US004342
2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US004914
                                                                                                                                                          98WO-US022991
                                                                                                                                                                  98WO-US022992
                                                                                                                 98WO-US019094
                                                                                                                                                                                 98WO-US025108
                                                                                                        98WO-US019093
                                                                                                                                                                                                  99WO-US005028
                                               12-APR-2002; 2002US-00121053
                                                                                                                                                                                                                                                                                                                                    99WO-US028
99WO-US028
                                                                                                                                                                                                                                                                                                                                                            99WO-US028
99WO-US030
99WO-US030
                                                                                                                                                                                                                                                                                                                  99WO-US02
                                                                                                                                                                                                                                                                                                                                                      99WO-US02
                                                                                                                                                                                                                                                                                                                             308U-0M66
                US2003199053-A1
                                                                                                                                                                                                                                                                                                                                                                                                                           06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-JUL-2000;
11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                    02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                     05-JAN-2000;
                                                                                                                                                                                                                                   14-MAY-1999;
02-JUN-1999;
                                                                                                                                                                                          05-JAN-1999;
                                                                                                                                                                                                          10-MAR-1999;
                                                                                                                                                                                                                           20-APR-1999;
                                                                                                                                                                                                                                                    01-SEP-1999
                                                                                                                                                                                                                                                                                    15-SEP-1999
                                                                                                                                                                                                                                                                                                            30-NOV-1999
                                                                                                                                                  07-0CT-1998,
29-0CT-1998,
                                                                                                                                                                                    DEC-1998
                                                                                                                                                                                                                                                                                            05-0CT-1999
                                                                                         28-AUG-1998
10-SEP-1998
                                                                                                                                                                                                                                                                         15-SEP-1999
                                                                                                                                                                                                                                                                                                                              01-DEC-1999
                                                                 31-MAR-1997
                                                                         12-JUN-1998
                                                                                  14-JUL-1998
                                                                                                                  14-SEP-1998
                                                                                                                           14-SEP-1998
                                                                                                                                           17-SEP-1998
                                 23-OCT-2003
```

24-AUG-2000; 2000WO-US023328.
08-NOV-2000; 2000WO-US030952.
10-NOV-2000; 2000WO-US030873.
01-DEC-2000; 2000WO-US032678.
20-DEC-2000; 2000WS-00747259.
28-FEB-2001; 2000WS-00796498.
28-FEB-2001; 2001WS-0079666.
01-MAR-2001; 2001WS-00808689.
14-MAR-2001; 201US-00808689. 2001US-00854208. 2001US-00854280. 2001US-00860216. 2001US-00866028. 2001US-00872035. 2001WO-US017800. 2001US-00874503. 2001WO-US017092 2001US-00882636 2001US-00886342 2001WO-US019692 2001US-008B7879 2001WO-US020116 2001US-00908827 2001US-00924419 2001US-00927796 16-AUG-2001; 2001US-00931836 19-DEC-2001; 2001US-00028072 05-APR-2001; 2001US-00828366 2001US-00866034 10-MAY-2001; 10-MAY-2001; 01-JUN-2001; 14-JUN-2001; 19-JUN-2001; 29-JUN-2001; 09-AUG-2001; 18-MAY-2001; 25-MAY-2001; 25-MAY-2001; 25-MAY-2001; 01-JUN-2001; 20-JUN-2001; 21-JUN-2001; 22-JUN-2001;

(GETH) GENENTECH INC.

3 Gao Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Baker KP, Beresini M, De Gerritsen ME, Goddard A, Smith V, Stewart TA, Tum

WPI; 2003-900164/82. N-PSDB; ADD92055.

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

Claim 12; SEQ ID NO 474; 636pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymuclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as ntisense RNA and DNA and in gene therapy. The polymucleotides may also contisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for medicament for gene expression in pericyte cells, for stimulating the uprate of stimulating contistention of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for treating cells, for inducing endothelial cell tube formation and for treating

```
Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TWF-alpha release;
glucose uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping;
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalssaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence.html.
                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                                                                                                                                                                                                                                              1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lvaroii L,
Sherwood S;
                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Filvaroff E,
                                                                                                                                                                                                                            100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Deforge L, Desnoyers L, Filvar
1, Godowski PJ, Gurney AL, She
Tumas D, Watanabe CK, Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel human secreted and transmembrane protein PRO1159
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADE33519 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-UUN-1999; 99WO-US012252.
25-AUG-1999; 99US-00380137.
30-MAR-2000; 2000WO-US008439.
01-DEC-2000; 2000WO-US032678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-MAY-2002; 2002US-00147497.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0097951P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-DEC-2001; 2001US-00028072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beresini M, De
E, Goddard A,
                                                                                                                                                                                                                                                                90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003-899786/82.
                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-899786/
N-PSDB; ADE33518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003194767-A1
                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-0CT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE33519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith V,
                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 177
                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADE33519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                   à
```

```
The invertion describes sub mucies acids encoung FW (secrete and transmembrane) polygeptides (I). (I) is useful for stimulating the uptake of release of TNF-alpha from human blood, for modulating the uptake of glucose or FFA by skeletal muscle cells or adjecyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of rune car utricular supporting cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating of the release of profosine from PBMC cells, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the binding of C A-peptide to factor VIIA, for inhibiting the binding of A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte cells, for stimulating proliferation of endothelial cells, for detecting colls, for stimulating proliferation of endothelial cells, for detecting prostate, rectal, cervical or liver tumour. The oligonuclectide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding interaction. A polymcleotide (II) encoding (I) is useful in the development and corpagnantion of PRO polypeptide, for generating transgenic animals which in turn are useful in the development and corposes. An anti-(I) antibody is useful in diagnostic assays for PRO, escreening of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome arker, and for generating or server and timing the expression in specific cells, tissues or servum and for adifinity purification of PRO from recombinant cell culture or natural colling its expression in specific cells, tissues or servum and colling and colling and cell in anovel human secreted and transmembrane PRO endored and services. (I) and the proper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tumour necrosis factor alpha release; TNF-alpha release; glucose uptake modulator; FFA uptake modulator; cell differentiation stimulator; cell differentiation inhibitor; cytokine release stimulator; tumour; clum tumour; colon tumour; breast tumour; prostate tumour; rectal tumour; cervical tumour; inver tumour; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                            The invention describes 305 nucleic acids encoding PRO (secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel human secreted and transmembrane protein PRO1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; secreted and transmembrane protein; PRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
Claim 12; SEQ ID NO 474; 636pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADE34071 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-APR-2002; 2002US-00121046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003194791-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE34071;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     &XGGGGGGGGGGGGGGGGGGGGGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
08-NOV-2000; 2000WO-US030952.
10-NOV-2000; 2000WO-US030873.
01-DEC-2000; 2000WO-US032678.
20-DEC-2000; 2000US-00747259.
20-DEC-2000; 2000WO-US034956.
28-FEB-2001; 2001US-00796498.
               98WO-US012456.
98WO-US014552.
98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                              99WO-US030911.
                                                                                                                                                                                                                                                                                                                                                99WO-US030720.
                                                                                                                                                                                                                                                                                                                                                                99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-AUG-2000; 2000WO-US023522
24-AUG-2000; 2000WO-US023328
                                                                                                                                             99WO-US005028.
                                                                                                                                                                                        99WO-US012252.
                                                                                                                                                                                                                         99WO-US021090
                                                                                                                                                                                                                                           3089.
                                                                                                                                                                                                                                                                   99WO-US028409
                                                                                                                                                                                                                                                                            99WO-US02B301
                                                                                                                                                                                                                                                                                                             99WO-US028565.
                                                                                                                                                                                                                                                                                                                                                       99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000219
                                                                                                                                                                                                                                                                                                                                                                               2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US005601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014941
                                                                                                    98WO-US022991
                                                                                                                    98WO-US024855
98WO-US025108
                                                                                                                                                                         99WO-US008615
                                                                                                                                                                                99WO-US010733
                                                                                                                                                                                                                  99WO-US020944
                                                                                                                                                                                                                                                                                            99WO-US028551
                                                                                                                                                                                                                                                                                                     99WO-US028564
                                                          98WO-US019094
                                                                           98WO-US019330
                                                                                    98WO-US019437
                                                                                             98WO-US021141
                                                                                                              98WO-US022992
                                                                                                                                      99WO-US000106
                                                                                                                                                               2000WO-US006319
                                                                   98WO-US019177
                                                                                                                                                                                                                                           99WO-US023
                                                                                                                                                                                                                                                                                     99WO-US02
                                                                                                                                                                                                                                                                                                                      99WO-US03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-MAR-2000; 2
30-MAR-2000; 2
17-MAY-2000; 2
22-MAY-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-MAR-2000;
02-MAR-2000;
15-MAR-2000;
20-MAR-2000;
                                                                                                                                                                                                                                                                                                                                             22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                 24-FEB-2000;
24-FEB-2000;
01-MAR-2000;
                                                                                                                                                                        20-APR-1999;
14-MAY-1999;
02-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                 11-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                 18-FEB-2000;
22-FEB-2000;
                                                          14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                10-MAR-1999;
                                                                                                                                                                                                                          15-SEP-1999;
                                                                                                                                                                                                                                                                                                                               20-DEC-1999
                                                                                                                                                                                                                                                                                                                                      20-DEC-1999,
                                                                                             07-0CT-1998
                                                                                                                                               08-MAR-1999
                                                                                                                                                                                                                  13-SEP-1999
                                                                                                                                                                                                                                   15-SEP-1999
                                                                                                                                                                                                                                                   29-NOV-1999
                                                                                                                                                                                                                                                                                                             02-DEC-1999
                                                                                                                              01-DEC-1998
                                                                                                                                     05-JAN-1999
                                                                                                                                                                                                                                           05-0CT-1999
                                                                                                                                                                                                                                                                            01-DEC-1999
                                                                                                                                                                                                                                                                                     01-DEC-1999
                                                                                                                                                                                                                                                                                                    02-DEC-1999
                                  28-AUG-1998
                                           10-SEP-1998
                                                  14-SEP-1998
                                                                                     17-SEP-1998
                                                                                                                                                                                                                                                             30-NOV-1999
                                                                                                                                                                                                                                                                    30-NOV-1999
                                                                                                                                                                                                                                                                                                                       16-DEC-1
```

28-FEB-2001; 2001WO-US006520.
09-MAR-2001; 2001WO-US006666.
14-MAR-2001; 2001US-00808689.
22-MAR-2001; 2001US-00808689.
22-MAR-2001; 2001US-00816744.
00-ARY-2001; 2001US-00854208.
10-MAY-2001; 2001US-00854208.
10-MAY-2001; 2001US-00866216.
25-MAY-2001; 2001US-00866034.
25-MAY-2001; 2001US-00866038.
25-MAY-2001; 2001US-00866038.
25-MAY-2001; 2001US-00866038.
25-MAY-2001; 2001US-00866038.
25-MAY-2001; 2001US-00866038.
25-MAY-2001; 2001US-0086634.
19-UUN-2001; 2001US-00892636.
19-UUN-2001; 2001US-00892636. 2001US-00887879 2001WO-US020116 2001WO-US021066 2001US-00924419. 2001US-00927796. 19-DEC-2001; 2001US-00028072 2001US-00908827 06-AUG-2001; 21-JUN-2001; 22-JUN-2001; 29-JUN-2001;

(GETH) GENENTECH INC.

3 Gao Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-899790/82. N-PSDB; ADE34070

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

Claim 12; SEQ ID NO 474; 636pp; English.

The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (I). (I) is useful for stimulating the crease of TNP-alpha from human blood, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for glucose or FRA by skeletal muscle cells or adipocyte cells, for cimulating the proliferation of differentiation of chondrocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of reprocession in pericyte cells, for stimulating the proliferation of T-lymphocyte cells, for stimulating the proliferation of endothelial cells, for detecting the rectal, cervical or liver tumour. The oligonucleotide probes cells, for inhibiting the differentiation of adipocyte cells, for estimulating proliferation of endothelial cells, for detecting cervical or liver tumour. The oligonucleotide probes are useful for isolating genomic and cDNA nucleotide sequences or antisense probes. (I) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in cand gene mapping, in generation of antisense RNA and DNA, in the correction of the PRO polypeptide, for generating transgenic animals or correcting of therapeutically useful reagents, in gene therapy, for chromosome identification, as chromosome marker, and for generating cromosome alfantification, as chromosome marker, and for generating correcting its expression in specific cells, tissues or serum, and for correcting its expression in specific cells, tissues or serum, and for correcting its expression in specific cells, tissues or serum, and for correcting expension of PRO from recombinant cell culture or natural corrections and sequence of a novel human secreted and transmentane PRO proper cells or corrected and transmentane prope

```
2001US-00816744.
2001US-00828366.
2001US-00854208.
2001US-00854280.
2001US-008660216.
                                                                                                                                                                                                                                                                                                                                                                                                2000US-00147259.
2000WO-US034956.
2001WG-005620
2001WO-US006652
2001WG-00806666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00866034.
2001WO-US017092.
2001US-00872035.
2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00874503.
2001US-00882636.
2001US-00886342.
2001WO-US019692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-US021735.
2001US-00908827.
2001US-00924419.
2001US-00927796.
2001US-00931836.
                                                                   99WO-US030095.
99WO-US030911.
99WO-US030999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00887879.
2001WO-US020116.
2001WO-US021066.
                             99WO-US028634
                                                                                                                    99WO-US031274
2000WO-US000219
                                                                                                                                                                                                                                                           2000WO-US007377
2000WO-US007532
                                                                                                                                                                                                                                                                              2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                             2000WO-US030873
2000WO-US032678
          99WO-US028409
99WO-US028301
                                                 99WO-US028564
99WO-US028565
                                                                                                 99WO-US030720
                                                                                                                                                 2000WO-US000376
                                                                                                                                                                   2000WO-US004341
2000WO-US004342
                                                                                                                                                                                       2000WO-US004414
                                                                                                                                                                                                          2000WO-US005004
                                                                                                                                                                                                                                                  2000WO-US006884
                                                                                                                                                                                                                                                                                                                                        2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                           2000WO-US023328
                                                                                                           99WO-US031243
                                                                                                                                       2000WO-US000277
                                                                                                                                                            2000WO-US003565
                                                                                                                                                                                                  2000WO-US004914
                                                                                                                                                                                                                     2000WO-US005601
                                                                                                                                                                                                                               2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
30-NOV-1999;
30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                       22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                           20-MAR-2000;
21-MAR-2000;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                 20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                   -MAR-2000;
-MAR-2000;
-MAR-2000;
-MAR-2000;
                                                                                                                                                06-JAN-2000;
                                                                                                                                                                   18-FEB-2000;
                                                                                                                                                                                                                                                                                        17-MAY-2000;
                                                                                                                                                                                                                                                                                                           0-MAY-2000;
                                                                                                                                                                                                                                                                                                                                      11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                           24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                      08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .0-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAY-2001;
18-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-DEC-2001;
                                                                                                                                                                                                                                                                                                                    02-JUN-2000;
  0;
                                                                                                                                                                                                                                              Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; addrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; seeletal muscle cell; dipocyte cell; pericyte cell; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                          1 MTFFLSLLLLLUCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                             1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                        Gaps
                                        ;
0
                    Length 90;
                                        Indels
                   Query Match
100.0%; Score 462; DB 7;
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0;
                                                                                                90
                                                                                                                 90
                                                                                                GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                   ADD80123 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US024855.
98WO-US025108.
99WO-US000106.
99WO-US00528.
2000WO-US005319.
2000WO-US006615.
99WO-US010733.
99WO-US010733.
                                                                                                                                                                                                                                                                                                                                                                                                                                     97WO-US005230.
98WO-US012456.
98WO-US014552.
98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US019177.
98WO-US019330.
98WO-US019437.
98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US022991.
98WO-US022992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US021547
99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                    2002US-00140805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US020944
                                                                                                                                                                                                                              Human PRO polypeptide #237.
                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                             US2003207417-A1.
 Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77-071-1998
29-071-1998
29-071-1998
20-NOV-1998
01-DEC-1998
05-JAN-1999
10-MAR-1999
110-MAR-1999
110-MAR-1999
110-MAR-1999
114-MAY-1999
02-JUN-1999
01-SEP-1999
01-SEP-1999
                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                   07-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                     31-MAR-1997,
12-JUN-1998,
14-JUL-1998,
28-AUG-1998,
10-SEP-1998,
14-SEP-1998,
14-SEP-1998,
16-SEP-1998,
16-SEP-1998,
17-SEP-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                         29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-SEP-1999
                                                                                                                                                                                       ADD80123;
                                                                                                  61
                                                                                                                                                RESULT 179
                                                                                                                                                           ADD80123
  g
                                                                          셤
                                                                                                                                                                     ò
                                                                                                à
                                                                                                             q
```

```
invention also relates to a natioody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO polypeptide, amethod for stimulating the release of tumour necrosis factor—alpha (TNF-alpha) from human blood, a method for stimulating the release of tumour necrosis factor—alpha (TNF-alpha) from human blood, a method for stimulating the projection of differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung).

Colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymolectides are useful in molecular biology, including uses as thybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymolectides may also antisense RNA and DNA and in gene therapy. The polymolectides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or acceptable. The proposition of medicament for treating a condition responsive to the polypeptides or artibodies, such as tumours, for stimulating and inhibiting proliferation of thuman microvascular endothelial cells, for sminhaling the uptake of stimulating differation of or gene expression in pericyte cells, for stimulating cells for stimulating differation of inner ear utricular supporting cells or T-lymphocyte cells, for stimulating and for cartilage are useful for treating sports injuries and articular cartilage are useful for treating sports related joint problems. The proliferation of inner ear utricular supporting cells of treating sports arious bone and/or cartilage defects, oscenarintitis and rhematoid arthritis. Or polypeptides are also useful for treating sports related of interfers and marcial and contains and contains and contains 
                                                                                                                                                                                                                                                                                                                                                                     The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The
           3
              Gao
                                                                                                                                                                                                  New PRO nucleic acid, useful for manufacturing a medicament for diagnosing or treating tumor, for chromosome mapping or for tissue
Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                      Claim 12; Fig 474; 638pp; English.
                                                                                                                      2003-875867/81.
                                                                                                                                                   N-PSDB; ADD80122
```

```
MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60.
                                                                                                                                9
                                                                                                                           1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                                                   Gaps
                                                                  0
                                   Length 90;
                                                                Indels
                              100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                            90
                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                              90; Conservative
                              Query Match
Best Local Similarity
Sequence 90 AA;
                                                              Matches
                                                                                                                          g
                                                                                                                                                            à
                                                                                                                                                                                        g
                                                                                              à
```

```
Human; PRO; secreted polypeptide; transmembrane polypeptide;
ADD93160 standard; protein; 90
                                                            Human PRO polypeptide #237.
                                        (first entry)
                                        29-JAN-2004
                    ADD93160;
```

RESULT 180

cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports silvary; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;

Homo sapiens.

US2003194768-A1.

16-0CT-2003

21-MAY-2002; 2002US-00152371.

03-MAR-2000; 2000US-0187202P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff E, G A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, 1E, Goddard ME, Goddard Stewart TA, Gerritsen Baker KP, Smith V,

WPI; 2003-899787/82. N-PSDB; ADD93159.

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

Claim 12; SEQ ID NO 474; 636pp; English.

generating etters transgenic animals or knock-out animals which are generating etters transgenic animals of therapeutically useful casgents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of slucose or FPA by skeletal muscle cells or adipocyte cells, for stimulating proliferation of or gene expression in periotyte cells, for stimulating proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and retribute are useful for treating sports-related of proteoglycans from cartilage are useful for treating sports-related joint problems, atticular cartilage are useful for treating various mammalian haemoglobin-may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from reports. The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNP-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridiseation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides and is be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are JSPTO at segdata.uspto.gov/sequence.html.

Sequence 90 AA;

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymoclectides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the poliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleorides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also
                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hundred and seventy five nucleic acids encoding PRO polypeptides, all for treating pericyte-associated tumors, diabetes and various bone
                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; ancer adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                                                                                             9
                                                                          09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                        1 MIFFLSLILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ge
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Filvaroff E,
Length 90;
                                      Indels
100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                         90
                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 12; SEQ ID NO 474; 648pp; English.
                                                                                                                                                         GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rheumatoid arthritis; haemoglobi
immune system cell infiltration.
                                                                                                                                                                                                                                                                                            ADE19580 standard; protein; 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-MAR-2000; 2000US-0187202P.
10-NOV-2000; 2000WO-US030873.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-MAY-2002; 2002US-00152385.
                                                                                                                                                                                                                                                                                                                                                                                                           Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2003-900156/82.
                    Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-900156/
N-PSDB; ADE19579.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003199025-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                       29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-OCT-2003.
                                                                                                                                                                                                                                                                                                                                  ADE19580;
                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith V,
      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 useful
                                                                                                                                                                                                                                                    RESULT 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TWO J
                                                                                                                                                                                                                                                                            ADE19580
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                         ð
```

```
be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FPA by skeletal muscle cells or adipocyte cells, for stimulating cells interation of or gene expression in periotyte cells, for stimulating proliferation of inner ear utricular supporting cells, for stimulating cells, for indiving endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans (from cartilage are useful for treating various mammalian haemoglobince are also useful for treating various mammalian haemoglobince associated dissorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This center of the for this patent is also available in electronic format from responders are such as various and properties of the invention. Note: The result of the condition of the invention of the format from them to man are conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; PRO; secreted polypeptide; transmembrane polypeptide; tummour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tummour; cancer; adrena!; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; inner ear utricular supporting cell; periotte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MIFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90
                                                                                                                                                                                                                                                                                                                                                                                                                                                              JSPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE19028 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-MAY-2002; 2002US-00152393.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003199026-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-2000;
19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE19028;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADE19028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
```

Gao W;

```
Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone
                                                                                                                            The invention relates to isolated human PRO polypeptides (secreted and
Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                            useful for treating pericyte-associated tum
and/or cartilage disorders, e.g. arthritis.
                                                                                                         Claim 12; SEQ ID NO 474; 636pp; English
  Baker KP, Beresini M, De
Gerritsen ME, Goddard A,
                      Stewart TA,
                                        2003-900157/82.
                                                   N-PSDB; ADE19027
                      Smith V,
    ###X#X###X$X$66666666666666666666666666666666
```

Creamembrane polypeptides name two polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a RRO polypeptide a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymicleotides are useful in molecular biology, including uses as plyncleotides are useful in molecular biology, including uses as antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing RNO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PNO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of encounters, for stimulating and inhibiting proliferation of or gene expression in pericyte cells, for stimulating free proliferation of or gene expression in pericyte cells, for stimulating endothelial cells for mediuating cells or T-lymphocyte cells, for atimulating endothelial cells two formation and for treating endothelial cells two formation and for treating cartiage are useful for treating sports inhibates of proteoglycans of the proliferation of inner ear utricular supporting endothelial cells for manifested for cartilage defects, oscenathritis and rheumatoid arthritis. PRO polypeptides which stimulassasemias and conditions which espenent as benefit from enhanced local immune system cell infilteration. This sequence data for this patent is also available in electronic format from expressing a supere

```
1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                    1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                      Gaps
                                    0;
Length 90;
                                    0; Indels
 100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                                                           GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90
                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                        90; Conservative
                     Local Similarity
     Query Match
                                                                                                          d
                                                                                                                                                  à
                                                                                                                                                                                     셤
```

Sequence 90 AA;

9

ADE43224 standard; protein; 90 ADE43224; RESULT 183 ADE43224

Human PRO polypeptide #237. (first entry) 29-JAN-2004

Human; PRO; secreted polypeptide; transmembrane polypeptide;

tumour necrosis factor-alpha, TNF-alpha, chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003199033-A1.

28-MAY-2002; 2002US-00156845.

05-JUN-2000; 2000US-0209832P.

01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Gao Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Smith V, Stewart TA, Baker KP, Gerritsen

WPI; 2003-900162/82. N-PSDB; ADE43223 Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

Claim 12; Fig 474; 636pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridiation probes, in chromosome and gene mapping, in generating the preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful are useful in the development and screening of therapeutically useful are redeparts. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of of insertial muscle cells, for modulating the uptake of glucose or FRA by skeletal muscle cells, for adipocyte cells, for stimulating the proliferation of inner ear utricular supporting cells, for stimulating cells, for inducing endothelial cells to adipocyte cells, for stimulating cells, for inducing endothelial cells to sports injuries and cartilage are useful for cratilage disorders such as sports injuries and cartilage are useful to receasing contributes and are artifical are such as sports injuries and cartilage are useful for treating sports caled of proceedy contributed and the relates of proceedy contributed and artification of the cartilage are useful for treating sports related of arthritis. articular cartilage defects, osteoarthrifis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at segdata.uspto.gov/sequence.html.

Sequence 90 AA;

```
Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, (
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00816744.
2001US-00828366.
2001US-00854208.
2001US-00854280.
2001US-00860216.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US017092.
2001US-00872035.
2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00874503.
2001US-00882636.
2001US-00886342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US019692.
2001US-00887879.
2001WO-US020116.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00908827
2001US-00924419
2001US-00927796.
2001US-00931B36.
2001US-00028072.
                                                                                                                                                                                                                                                                                                      2000WO-US015264.
2000WO-US020710.
2000WO-US022031.
2000WO-US023522.
                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US006666.
2001US-00802706.
2001US-00808689.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00866028.
2001US-00866034.
         99WO-US028634.
99WO-US028551.
99WO-US028564.
99WO-US030095.
99WO-US0300915.
                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US006520.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00796498
                                                                                                                                                                                                    2000WO-US005601.
                                                                                                                                                                                                                         2000WO-US005841.
2000WO-US006884.
                                                                                                                                                                                                                                                                 2000WO-US008439
                                                                                                                                                                                                                                                                         2000WO-US013705
                                                                                                                                                                                                                                                                                    2000WO-US014042.
                                                                                                                                                                                                                                                                                              2000WO-US014941
                                                                                                                                                                                                                                                                                                                                               2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                       000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                           000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                       2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US034956
                                                                                                                                                    2000WO-US004341.
                                                                               99WO-US030720
99WO-US031243
                                                                                                                                2000WO-US000376
                                                                                                    99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2001; 2
09-MAR-2001; 2
14-MAR-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-MAR-2001; 2
05-APR-2001; 2
10-MAY-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-MAY-2001; 2
25-MAY-2001; 2
25-MAY-2001; 2
25-MAY-2001; 2
01-JUN-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2001;
14-JUN-2001;
19-JUN-2001;
20-JUN-2001;
                                                                                                                                                                                          24-FEB-2000; 2
01-MAR-2000; 2
02-MAR-2000; 2
02-MAR-2000; 2
15-MAR-2000; 2
20-MAR-2000; 2
30-MAR-2000; 2
17-MAY-2000; 2
01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
20-DEC-1999;
20-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
66-JAN-2000;
66-JAN-2000;
18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                          11-AUG-2000;
23-AUG-2000;
24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                           28-FEB-2001;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                       20-DEC-2000;
20-DEC-2000;
                                                                                                                                                                                                                                                                                     22-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                         08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                   10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                            01-DEC-2000;
                                                                                                                                                                                                                                                                                                         02-JUN-2000;
   ö
                                                                                                                                                                                                                                  Human, PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
                                           09
                                                          9
                                                      1 MTFFLSLLLLLUCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                         Gaps
                         ..
     Length 90;
                         Indels
     100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                     GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                               GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                           ADD96013 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98NO-US022991.
98NO-US022992.
98NO-US024855.
98NO-US025108.
99NO-US000106.
99NO-US005190.
                                                                                                                                                                                                                                                                                                                                                                                                                                 97WO-USO05230.
98WO-USO14556.
98WO-USO17888.
98WO-USO178824.
98WO-USO19093.
98WO-USO19094.
98WO-USO19094.
98WO-USO19177.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US008615.
99WO-US010733.
99WO-US012252.
99WO-US020111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US028313
99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US020944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US021547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US020594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                              2002US-00123322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US021141
                                                                                                                                                                                                                      Human PRO polypeptide #237
                                                                                                                                                                                                  29-JAN-2004 (first entry)
        Query Match
Best Local Similarity 100.0
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                         US2003199059-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-AUG-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
17-SEP-1998;
17-SEP-1998;
07-0CT-1998;
29-0CT-1998;
29-0CT-1998;
01-DEC-1998;
01-DEC-1999;
05-JAN-1999;
05-JAN-1999;
10-MAR-1999;
10-MAR-1999;
10-MAR-1999;
20-MAR-1999;
20-MAR-1999;
20-MAR-1999;
20-MAR-1999;
20-MAR-1999;
20-MAR-1999;
20-MAR-1999;
20-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
15-SEP-1999;
05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                 15-APR-2002;
                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                             23-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                     31-MAR-1997
                                                                                                                                                                                 ADD96013;
                                                                                        61
                                                                                                                                        셤
                                                                                                       g
                                                  ð
                                                                                        ò
```

Gao W;

skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; andothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

JS2003199064-A1.

23-OCT-2003.

Homo sapiens

microvascular endothelial cell; glucose; FFA;

Ñ

Zhang

Wood WI,

Watanabe CK,

Tumas D,

Stewart TA,

Smith V,

```
1 MTFFLSLLLLLVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; PRO; secreted polypeptide; transmembrane polypeptide;
tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
                                                                                                                                                                                                                                                                                                                                                                                                           MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE22899 standard; protein; 90 AA
                                                                    Claim 12; Fig 474; 638pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                            90; Conservative
               WPI; 2003-900168/82.
                                                                                                                                                                                                                                                                                                                                                                                    Sest Local Similarity
                       N-PSDB; ADD96012
                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                            Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADE22899;
                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 185
                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ਨੋ
                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the polypeptide, a method for stimulating the presence of a tumour in a mammal (e.g. adrean), lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polyunclecides are useful in molecular biology, including uses as publication probes, in chromosome and gene mapping, in generating the presence of hybridisation probes, in chromosome and gene mapping, in generating therefore the used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and soreening or knock-out animals which are useful in the development and soreening or knock-out animals which are useful in the development and soreening or knock-out animals which are useful in the development and soreening or the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of thuman microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cells or adipocyte cells, for stimulating the uptake of arthritis: PRO polypeptides are also useful for treating various mammals and or artilage defects, osteoarthritis and rheumatoid arthritis. PRO pubpeptides are also useful for treating various mammals and also useful for treating various mammals and sequence eare useful for treating various mammals and sequence cepresents a human PRO plypeptide or propertide o
Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
```

```
99WO-US021547.
99WO-US023089.
99WO-US028214.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                      2000WO-US000376.
                                                                                                                                                                                                                                                                                                                                                                            000WO-US003565.
                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US007532
                                                                                                                                                                                                          2000WO-US006319.
                                                                                                                                                                                                                      99WO-US010733.
                                                                                                                                                                                                                           99WO-US012252.
                                                                                                                                                                                                                                  99WO-US020111.
                                                                                                                                                                                                                                                    99WO-US021090.
                                                                                                                                                                                                                                                                                 99WO-US028409.
                                                                                                                                                                                                                                                                                              99WO-US028634.
                                                                                                                                                                                                                                                                                                                                        99WO-US030720
                                                                                                                                              98WO-US019330.
                                                                                                                                                           98WO-US021141.
                                                                                                                                                                                  98WO-US025108
                                                                                                                                                                                         99WO-US000106
                                                                                                                                                                                              99WO-US005028.
                                                                                                                                                                                                     99WO-US005190.
                                                                                                                                                                                                                99WO-US008615.
                                                                                                                                                                                                                                        99WO-US020594
                                                                                                                                                                                                                                              99WO-US020944
                                                                                                                                                                                                                                                                                                   99WO-US028551
99WO-US028564
                                                                                                                                                                                                                                                                                                                99WO-US028565
                                                                                                                                                                                                                                                                                                                      99WO-US030095
                                                                                                                                                                                                                                                                                                                                  99WO-US030999
                                                                                                                                                                                                                                                                                                                                                    99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                    000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US007377
                                                                                                                                                                       98WO-US022992
                                                                                                                                                                             98WO-US024855
                                                                                                                                        98WO-US019177
                                                                                                                                                     98WO-US019437
                                                                                                                                                                98WO-US022991
                                                                                   19-APR-2002; 2002US-00125932
                                                                                                                                                                                                                                                                                                                                                                                                                                              21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                       06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                              :666
                                                                                                                                                                                                           10-MAR-1999;
                                                                                                                                                                                                                                                                                                                 ,666
                                                                                                                                                                                                                                                                                                                                        22-DEC-1999;
                                                                                                                                              1998;
                                                                                                                                                                 1998;
                                                                                                                                                                                                                       14-MAY-1999;
                                                                                                                                                                                                                            02-JUN-1999;
                                                                                                                                                                      29-OCT-1998
                                                                                                                                                                                               08-MAR-1999;
                                                                                                                                                                                                     10-MAR-1999
                                                                                                                                                                                                                                   01-SEP-1999
                                                                                                                                                                                                                                              13-SEP-1999
                                                                                                                                                                                                                                                     15-SEP-1999
                                                                                                                                                     17-SEP-1998
                                                                                                                                         14-SEP-1998
                                                                                                                                                                                                                                                                                                     02-DEC-:
                                                                                                                                                                                                                                                                             30-NOV-
                                                                                                                                                                                                                                                                                         01-DEC-
                                                                                                                                                          07-0CT-2
                                                                                                                                                                                                                                                                       29-NOV-
                                                                                                                                                16-SEP-
ô
                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                     Indels
```

90

```
05-APR-2001; 2001US-00828366.

10-MXY-2001; 2001US-008542208.

10-MXY-2001; 2001US-008654280.

18-MXY-2001; 2001US-008660216.

25-MXY-2001; 2001US-00866028.

25-MXY-2001; 2001US-00866034.

25-MXY-2001; 2001US-00866034.
                                                                                                                                                     2001US-00816744.
2001US-00828366.
2001US-00854208.
                                                                                                                                                                                                                                                                     21-JUN-2001; 2001US-00887879.
22-JUN-2001; 2001WO-US020116.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US02173S.
                                                                                                                                                                                                                                                      2001US-00886342.
2001WO-US019692.
                                                                                                               2001US-00796498
2001WO-US006520
                                                                                                                                      2001US-00802706
2001US-00808689
                                                                                                                                                                                                                                               2001US-00882636
                                                                                                                                                                                                                                                                                                              06-AUG-2001; 2001US-00924419
09-AUG-2001; 2001US-00927796
                                                                                                                                                                                                                                                                                                                                      2001US-00028072
                                2000WO-US015264.
2000WO-US020710.
                                                                                                         2000WO-US034956
                                                                                                                                2001WO-US006666
                                                                                                                                                                                                                               2001WO-US017800
                                                                                                                                                                                                                                      2001US-00874503
                                                                                                                                                                                                                                                                                                      18-JUL-2001; 2001US-00908827
                                                                                                                                                                                                                                                                                                                              2001US-00931836
30-MAR-2000; 2
17-MAY-2000; 2
22-MAY-2000; 2
30-MAY-2000; 2
02-JUN-2000; 2
28-JUL-2000; 2
                                               11-A0G-2000;
23-A0G-2000;
24-A0G-2000;
08-NOV-2000;
10-NOV-2000;
20-DEC-2000;
20-DEC-2000;
28-FEB-2001;
28-FEB-2001;
                                                                                                                                                                                                                       01-JUN-2001; 2
01-JUN-2001; 2
05-JUN-2001; 2
                                                                                                                               01-MAR-2001;
09-MAR-2001;
14-MAR-2001;
                                                                                                                                                                                                                                                      19-JUN-2001;
20-JUN-2001;
                                                                                                                                                       22-MAR-2001;
                                                                                                                                                                                                                                              14-JUN-2001;
                                                                                                                                                                                                                                                                                                                                       19-DEC-2001;
                                                                                                                                                                                                                                                                                                                               16-AUG-2001;
```

(GETH) GENENTECH INC.

3 Gao esini M, Deforge L, Desnoyers L, Filvaroff E, Gt Goddard A, Godowski PJ, Gurney AL, Sherwood S; art TA, Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, Stewart TA, Gerritsen ME, Baker KP, Smith V,

WPI; 2003-900169/82. N-PSDB; ADE22898.

Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

Claim 12; Fig 474; 638pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, Kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as polymucleotides are useful in molecular biology, including uses as polymucleotides are useful in molecular biology, including uses and antisense RNA and on gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a

```
medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endotherial cells, for modulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the uptake of stimulating differentiation of adipocyte cells, for stimulating consolidation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating carborating endothelial cell tube formation approached arborating sources such as sports injuries and arborations. PRO copypeptides are also useful for treating sports-related joint problems, associated disorders such as various thalassaemias and conditions which cappended source represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from the USPTO website at seqdata.uspto.gov.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; perioyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga
ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 462; DB 7; Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Pred. nv.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 GKGIVKGRNLDSRGLILGAAAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD79017 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2000; 2000US-0209832P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-APR-2002; 2002US-00127900.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003203429-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baker KP, Bere
Gerritsen ME,
Smith V, Stewa
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADD79017;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD79017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TMF-alpha) from human blood, a method for stimulating the prosence of a tumour in a mammal (e.g. adremal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses a polynucleotides are useful in molecular biology, including uses a colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides may also thybridasation probes, in chromosome and gene mapping, in generating to be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening or knock-out animals which are useful in the development and screening or knock-out animals which are useful structured by the properties or antibodies are used in preparing a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or for gene expression in pericyte cells, for stimulating offerantiation of or gene expression in pericyte cells, for stimulating offerantiation of adipocyte cells, for stimulating cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating certurnities. PRO polypeptides which stimulate the relase of proteegalycans of from cartilage defects, osteoarthritis and rheumatoid athritis. PRO polypeptides are useful for treating various membaled disorders such as various thalassaemias and endothelial cell infilassaemias and condition. This csequence represents a human PRO polypeptide of the invention of former this pagetant useful portation sequence cepresents a pergetate at sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           neuroprotective; antiparkinsonian; cytostatic; gene therapy; chromosome mapping; gene mapping; transgenic animal; knock-out animal; neurodegenerative disorder; Parkinson's disease; Alzheimer's disease.
                                                             New isolated, secreted and transmembrane PRO polypeptides and nucleic acids, useful for the diagnosis, prevention and/or treatment of tumors, such as lung, colon, breast, prostate, rectal, cervical and/or liver tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVIPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human; secreted and transmembrane protein; PRO; nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel human secreted and transmembrane protein PRO1159.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GKGIVKGRNLDSRGLILGARAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE26367 standard; protein; 90 AA
                                                                                                                                                                                        Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90; Conservative
2003-875636/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
WPI; 2003-875636/
N-PSDB; ADD79016.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADE26367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADE26367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
9805-0088217P
9805-0088217P
9805-0088734P
9805-0088738P
9805-0088742P
9805-0088742P
9805-00888742P
9805-0088824P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0088876P.
98US-0089105P.
98US-0089440P.
98US-0089512P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0089532P
98US-0089538P
98US-0089598P
98US-0089600P
98US-0089607P
98US-0089907P
98US-0089907P
98US-0089948P
98US-0089948P
98US-0089948P
98US-0089952P
98US-0090254P
98US-0090254P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0090435P.
98US-0090444P.
98US-0090445P.
98US-0090472P.
                                                                                                                                                                                                                                                                                                                                                               9805-0087609P-9805-0087609P-9805-0087609P-9805-0088021P-9805-0088026P-9805-0088028P-9805-0088029P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-0088030P-9805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-008805-0088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0088326P.
98US-0088167P.
98US-0088202P.
                                                                                                                                                                                                                                                                                                                98US-0084600P.
98US-0087106P.
98US-0087607P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0090429P.
                                                                                                                                                                                                                                            97US-0066770P.
                                                                                                                                                                                                                                                                               98US-0078910P.
98US-0083322P.
                                                                                                                                                                                          97WO-US020069
                                                                                                                       2001US-00997384
                                                   US2003087305-A1
                  Homo sapiens.
                                                                                                                       15-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUN-1998
                                                                                    08-MAY-2003
                                                                                                                                                                                                                                            24-NOV-1997
                                                                                                                                                                                                                                                                                                                  07-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                     02-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                      03-JUN-1998
04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -NUL-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -NUL-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -NUL-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -NUL - 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -NUL-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .2-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - NUN-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04 - JUN-
04 - JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-JUN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -NUV-9-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NO5-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ND5-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NDC-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NDC-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NDD-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NDC-60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-JUN
```

```
98US-009667P.
98US-009681P.
98US-009681P.
98US-009681P.
98US-0096895P.
98US-0096895P.
98US-009695P.
98US-009695P.
98US-0097022P.
98US-0097022P.
98US-0097022P.
98US-009702P.
98US-009797P.
98US-009797P.
98US-009797P.
98US-009797P.
98US-0090536P.
98US-0090540P.
98US-0090557P.
98US-0090657F.
98US-0090657F.
98US-0090658F.
98US-0090658F.
98US-0090658F.
98US-0091386P.
98US-00913819.
98US-0091578P.
98US-0091578P.
98US-009153P.
98US-009133P.
98US-009133P.
98US-009158P.
98US-009133P.
98US-009133P.
98US-009133P.
98US-009133P.
98US-009133P.
98US-009133P.
98US-009133P.
98US-009133P.
98US-00913P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0100858P.
98WO-US019437.
98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0100634P
98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1998;
26-AUG-1998;
31-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
24-JUN-1998;
24-JUN-1998;
24-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
25-JUN-1998;
                                                                                   26 - 7UN - 1998;
26 - 7UN - 1998;
01 - 7UL - 1998;
01 - 7UL - 1998;
02 - 7UL - 1998;
                                                                                                                                                                      02-JUL-1998;
07-JUL-1998;
07-JUL-1998;
09-JUL-1998;
10-JUL-1998;
30-JUL-1998;
                                                                                                                                                                                                                                                                                                                               11-AUG-1998;
12-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                        17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                 17-AUG-1998;
17-AUG-1998;
17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-AUG-1998;
20-AUG-1998;
24-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-AUG-1998;
26-AUG-1998;
26-AUG-1998;
                                                                   -JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-0CT-1998;
                                                                                                                                                                                                                                   04-AUG-1998
                                                                                                                                                                                                                                                    04-AUG-1998
04-AUG-1998
                                                                                                                                                                                                                                                                     04-AUG-1998
                                                                                                                                                                                                                                                                                     04-AUG-1998
10-AUG-1998
                                                                                                                                                                                                                                                                                                               10-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                17-AUG-1998
17-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                           17-AUG-1998
18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                            18-AUG-1998;
18-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1998
                                                                                                                                                                                                                                                                             04-AUG-1998
                                                                                                                                                                                                                                                                                                       10-AUG-1998
```

0

09 9

9

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

61

à

RESULT 188

ADE32967

Human; secreted and transmembrane protein; PRO;
Tumour necrosis factor alpha release; TNF-alpha release;
glucose uptake modulator; FRA uptake modulator;
cell proliferation stimulator; cell differentiation stimulator;
cell differentiation inhibitor; cytokine release stimulator; tumour;
lung tumour; colon tumour; brasat tumour; prosetate tumour; rectal tumour;
cervical tumour; liver tumour; chromosome mapping; gene mapping;

Novel human secreted and transmembrane protein PRO1159

(first entry)

29-JAN-2004

ADE32967;

ADE32967 standard; protein; 90 AA

```
1 MTFELSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                       2000WO-US013705.
2000WO-US014042.
2000WO-US014941.
2000WO-US015264.
                                              99WO-US012252.
99US-0141037P.
99US-0144764P.
99US-0145698P.
99US-0146222P.
99WS-0146222P.
99WO-US021090.
98WO-US025108.
98US-0113296P.
99WO-US000106.
99WO-US005028.
99US-0123957P.
                                                                                                                                                                                                                                                                                                     2000WO-US008439.
2000WO-US013358.
                                                                                                                                                                                                                                                                                                                                                                       2000WO-US020710.
2000WO-US022031.
                                                                                                                                                                                                                                                                                                                                                               2000US-0213637P
                                                                                                                                   99US-0158663P
99WO-US028313
                                                                                                                                                                99WO-US028634
99WO-US030095
                                                                                                                                                                                             2000WO-US000219
                                                                                                                                                                                                                                                               2000WO-US005841
2000WO-US006319
                                                                                                                                                                                                                                                                                   2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US023328
                                                                                                                                                         99WO-US028301
                                                                                                                                                                                     99WO-US030911
                                                                                                                                                                                                                 2000WO-US003565
                                                                                                                                                                                                                                   2000WO-US004414
                                                                                                                                                                                                                                            2000WO-US004914
                                                                                                                                                                                                                                                      2000WO-US005004
                                                                                                                                                                                                                           2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100.
es 90; Conservative
                                                                                                                                                                                                              11-FEB-2000;
18-FEB-2000;
22-FEB-2000;
                                                                                                                                                                                                                                                                                                                       17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                             02-MAR-2000;
10-MAR-2000;
15-MAR-2000;
                                                                                                                                                                                                                                                                                           20-MAR-2000;
30-MAR-2000;
15-MAY-2000;
                                                                                                                                                                                   20-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                15-SEP-1999;
15-SEP-1999;
08-OCT-1999;
30-NOV-1999;
                                                                                                                                                        01-DEC-1999;
01-DEC-1999;
16-DEC-1999;
                                                                                                                                                                                                                                           24-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                   24-AUG-2000;
                  05-77A-1999

08-MAR-1999

02-70N-1999

23-70N-1999

23-70N-1999

20-70L-1999

26-70L-1999

26-70L-1999

28-70L-1999

17-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                           н
                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loc
Matches
  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
```

```
gene therapy; chromosome identification; chromosome marker.
                                                                                                                                                                          Query Match
Best Local Similarity
                                                          N-PSDB; ADE32966
                                                                                                                                                                    Sequence 90 AA;
           US2003194766-A1.
                                                Gerritsen ME,
      Homo sapiens.
                                                                                                                                                                               :06
                 16-0CT-2003.
                                                                                                                                                                                                61
                                                  Smith V,
                                                                                                                                                                               Matches
셤
                                                                                                                                                                                                à
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the problemation of deformation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, in chromosome and gene mapping, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also consistent than the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful caseful in the development and screening of therapeutically useful candicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for stimulating differentiation of adipocyte cells, for stimulating collection of of or gene expression in pericyte cells, for stimulating collection of inducing endothelial cells or adipocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 12; Fig 474; 636pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Beresini M,
ME, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2003-900161/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; ADE42658.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gerritsen ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Smith V,
   ADE42659;
The invention describes 305 nucleic acids encoding PRO (secreted and transmembrane) polypeptides (1). (1) is useful for stimulating the cransmembrane) polypeptides (1). (1) is useful for stimulating the uptake of glucose or FFA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells, constimulating the proliferation of T-1ymphocyte cells, for stimulating cells, constituting the proliferation of adifferentiation of adipocyte cells, for simulating proliferation of endothabial cells, for detecting the presence of tumour in a mammal. The tumour is lung, colon, breast, che presence of tumour in a mammal. The tumour is lung, colon, breast, considering genomic and cDNA nucleotide sequences or antisense probes. (1) is also useful as therapeutic agent. PRO is useful in assays to identify other proteins or molecules involved in binding in an assays to identify other proteins or molecules involved in binding conding conding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTPFLSLILLLVCBAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                               Gao W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. (I) and (II) are useful for tissue typing. This is the amino acid sequence of a novel human secreted and transmembrane PRO
                                                                                                                                                                                                                                                                                                                                            Beresini M, Deforge L, Desnoyers L, Filvaroff E, Game, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 462; DB 7;
100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12; SEQ ID NO 474; 636pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                          05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                14-MAY-2002; 2002US-00145874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                     Baker KP, Beresini M,
                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-899785/82.
```

Gao

Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z;

```
Human; PRO; secreted polypeptide, transmembrane polypeptide; tummour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tummour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                 ADE42659 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-MAY-2002; 2002US-00156844.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-MAR-2000; 2000US-0187202P.
                                                                                                                                                                                                                                                                                    Human PRO polypeptide #237.
                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003199032-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                               29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-OCT-2003.
RESULT 189
                                  ADE42659
```

```
2001US-00828366.
2001US-00854208.
2001US-00854280.
2001US-00860216.
2001US-00866028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00796498.
2001WO-US006520.
2001WO-US006666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00802706.
2001US-00808689.
2001US-00816744.
                                                                                                           99WO-US028313.
99WO-US028409.
99WO-US028301.
99WO-US028634.
99WO-US028551.
                                                                                                                                                                 99WO-US028564.
99WO-US028565.
99WO-US030095.
99WO-US030911.
                                                                                                                                                                                                                                                                                                              2000WO-US004342.
2000WO-US004414.
2000WO-US004914.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001WO-US017092.
2001US-00872035.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00887879
2001WO-US020116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US023328.
2000WO-US030952.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US030873
                                                                                                                                                                                                                                                                   06-JAN-2000; 2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                        2000WO-US005601.
2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                                2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US034956
                                                                                                                                                                                                                                                      2000WO-US000219
                                                                                                                                                                                                                                                                                         2000WO-US003565
                                                      99WO-US020944.
99WO-US021090.
                                                                                                  99WO-US028214
                                                                                                                                                                                                              99WO-US030999
                                                                                                                                                                                                                        99WO-US030720
                                                                                                                                                                                                                                             99WO-US031274
                                  99WO-US020111
                                                                                                                                                                                                                                                                                                              18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                            20-DEC-1999;
22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-JUL-2000;
11-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-NOV-2000;
                                                                                                                                01-DEC-1999;
01-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
                                            08-SEP-1999;
13-SEP-1999;
15-SEP-1999;
                                                                            15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
30-NOV-1999;
  arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                        Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; striver; microvascular endothelial cell; glucose; FFA; inner ear utricular supporting cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage decet; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                09
                                                                                                                                                                                                     9
                                                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKIT
                                                                                                                                                                                 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                           Gaps
                                                                                                                                                          0;
                                                                                                                                  Ouery Match
Best Local Similarity 100.0%; Pred. No. 9.8e-49;
Matches 90; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                            61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                            GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                         ADD80675 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US019177.
98WO-US019330.
98WO-US019437.
98WO-US021141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US022992.
98WO-US024855.
98WO-US025108.
99WO-US000106.
99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US012456.
98WO-US014552.
98WO-US017888.
98WO-US018824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US005190
2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-MAY-2002; 2002US-00140809
                                                                                                                                                                                                                                                                                                                                                                       Human PRO polypeptide #237
                                                                                                                                                                                                                                                                                                                                                   29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2003207418-A1.
                                                                                                                   Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-SEP-1998;
07-OCT-1998;
29-OCT-1998;
29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-NOV-2003
                                                                                                                                                                                                                                                                                                                               ADD80675;
                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                      à
                                                                                                                                                                                                                              ð
```

us-09-989-293a-377.junl.rag

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, protectate, rectal, kidney, cervical and liver tumours). The prolynucleotides are useful in molecular biology, in generating a hybridisation probes, in chromosome and gene mapping, in generating of phynicisation probes, in chromosome and gene mapping, in generating a ritisense RNA and blook properties by recombinant techniques and in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening or antibodies are used in preparing a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or fundamental conference of human microvascular endochelial cells, for modulating the uptake of grucose or PRA by skeletal muscle cells, for modulating the uptake of grucose or PRA by skeletal muscle cells, for modulating differantiation of angene expression in paricyte cells, for stimulating differantian of inner ear utricular supporting cells, for stimulating and confine and or gene expression in paricyte cells, for stimulating and confine and or gene expression in paricyte cells, for stimulating are useful for treating various ammalian and cartilage are useful for treating various ammalian has apported as a subjective associated disorders such as various thalassaemias and confitions associated disorders such as various 
                                                                                                                                                                                                                                                                                                                                                                                                      New PRO nucleic acid, useful for manufacturing a medicament for diagnosing or treating tumor, for chromosome mapping or for tissue
                                                                                                                                                                                                                                      Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; Fig 474; 638pp; English.
                 09-JUL-2001; 2001WO-US021735.
18-JUL-2001; 2001US-00908827.
06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00927796.
16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
2001WO-US021066
                                                                                                                                                                                                                                                          Goddard A,
                                                                                                                                                                                                                                                                                        Smith V, Stewart TA,
                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                     WPI; 2003-875868/81
                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ADD80674.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 90 AA;
                                                                                                                                                                                                                                                               Gerritsen ME,
  29-JUN-2001;
```

```
60
                                                                                                      9
                                                                                          1 MTFFLSLLLLLVCBAIWRSNSGSNTLBNGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                     .
0
100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                   0; Indels
                                                                                                                                                                      90
                                   0; Mismatches
                                                                                                                                      61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                   90; Conservative
                 Local Similarity
Query Match
                                   Matches
                                                                                                 셤
                                                                                                                                    ð
                                                                   à
```

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte call; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; PRA; sekeletal muscle cell; adipocyte cell; pericyte cell; enforced cell; pericyte cell; endothelial cell tube formation, bone disorder; cartilage disorder; endothelial cell tube formation, bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. ADD89703 standard; protein; 90 AA. 22-MAY-2002; 2002US-00153552. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072. 03-MAR-2000; 2000US-0187202P Human PRO polypeptide #237. (first entry) US2003199028-A1. Homo sapiens. 29-JAN-2004 23-OCT-2003 ADD89703; ADD89703

Gao W;

(GETH) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, De E, Goddard A, Stewart TA, Baker KP, Ber Gerritsen ME, Smith V,

2003-900158/82. N-PSDB; ADD89702. Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the polypeptide, a method for stimulating the received to a tumour in a mammal leng a method for detecting the presence of a tumour in a mammal leng a method for detecting the presence of a tumour in a mammal leng a method for detecting the presence of a tumour in a mammal leng a method for detecting the presence of a tumour in a mammal leng in generating colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as intisense RNA and DNA and in gene therapy. The polynucleotides may also attisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in cuseful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating cells endothelial cells for modulating cells, for stimulating cells, for inner ear utricular supporting cells or T-lymphocyte cells, for inducing endedchelial cell tube formation and for treating cells, various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems,

```
ö
articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this parent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour, cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The
                                                                                                                                                                                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Filvaroff E, (
                                                                                                                                                                                                       .
0
                                                                                                                                                                      Length 90;
                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L, Desnoyers L, Filvar
ski PJ, Gurney AL, She
Watanabe CK, Wood WI,
                                                                                                                                                                    Score 462; DB 7;
Pred. No. 9.8e-49;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Deforge L,
A, Godowski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Fig 474; 637pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                         ADE40987 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A, Godows
Tumas D,
                                                                                                                                                                                                       .
0
                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-MAY-2002; 2002US-00156842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUN-2000; 2000US-0209832P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                     90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beresini M,
ME, Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2003-900160/82.
                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ADE40986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003199031-A1.
                                                                                                                                     Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADE40987;
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Smith V,
                                                                                                                                                                                                                                                                                                                                                                                          RESULT 192
                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                       dd
                                                                                                                                                                                                                                                                                                                                                                                                                             8X888888X8
                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                         ð
```

```
invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses antisense RNA and probes, in chromosome and gene mapping, in generating antisense RNA and in gene therapy. The polynucleotides may also antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing the proposition of screening of therapentically useful reagents. The PRO polypeptides by recombinant techniques and in generating either transgenic animals of therapentically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human miscrovascular endothelial cells, for mediating the uptake of stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in periotyte cells, for stimulating cells are utricular supporting cells or 1-lymphocyte cells, for inducing endothelial cell tube formation and for treating cells, for inducing endothelial cell tube formation and for treating cells, for matching and arthritis PRO polypeptides which stimulate the release of proceedlycans and entity transfer and entity entity and entity transfer and en
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 from cartilage are useful for treating sports-related joint problems articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-spasociated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; periotte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ٥;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 462; DB 7; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USPTO at segdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE04786 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003199034-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE04786;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADE04786
           Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

Wed Jun

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and bNA and in gene therapy. The polynucleotides may also be useful in the development and screening of therapeutically useful reagents. The PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvacular endothelial cells of adipocyte cells, for stimulating the proliferation of or gene expression in perjocyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cells or assports injuries and architis. PRO polypeptides which stimulate the release of proteoglycans architis. PRO polypeptides which stimulate the release of proteoglycans architis. PRO polypeptides which stimulate the release of proteoglycans architis. PRO polypeptides which stimulate and relating sports related joint problems.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Two hundred and seventy five nucleic acids encoding PRO polypeptides, useful for treating pericyte-associated tumors, diabetes and various bone and/or cartilage disorders, e.g. arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from
                                                                                                                                                                                                                                          Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G:
Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence data for this patent is also avo
USPTO at seqdata.uspto.gov/sequence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 12; Fig 474; 637pp; English.
                                                                                                         01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                03-MAR-2000; 2000US-0187202P.
                               28-MAY-2001; 2001US-00156846
                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-900163/82.
                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ADE04785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 AA;
```

```
9
                                                                                                    9
                                                                  1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                    1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTFTKAVKTT
                                   0; Gaps
100.0%; Score 462; DB 7; Length 90; 100.0%; Pred. No. 9.8e-49;
                                 Indels
                                   .
0
                                 0; Mismatches
                                 90; Conservative
               Local Similarity
Query Match
                                 Matches
                                                                                              ద
                                                                  ਨੇ
```

61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT

ò

ADC81211 standard; protein; 90 AA.

ADC81211;

(first entry) 15-JAN-2004

Novel human secreted and transmembrane protein PRO1159.

Gao

cell differentiation; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia; immune system cell infiltration; chromosome mapping; gene mapping; gene therapy; chromosome identification; chromosome marker. Human; secreted and transmembrane protein; PRO; secreted polypeptide; chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose uptake modulator; FFA uptake modulator; cell proliferation; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;

US2003092115-A1.

L5-MAY-2003

30-MAY-2002; 2002US-00158785.

05-JUN-2000; 2000US-0209832P. 01-DEC-2000; 2000WO-US03267B. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Gao W; Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Goddard Beresini M, Stewart TA, Gerritsen ME, Baker KP, Smith V,

2004-020238/02. N-PSDB; ADC81210. New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or cancer.

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the probliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in amammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynuclectides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating a fiber in preparing PRO polypeptides by recombinant techniques and in this ense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in cagenating either transgenic animals or knock-out animals which are cuseful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for medicament for treating differentiation of adipocyte cells, for stimulating the proliferation of simpocyte cells, for stimulating the proliferation of simpocyte cells, for stimulating the proliferation of simpocyte cells, for the proliferation of inner ar utricular supporting cells or the colls, for the proliferation of inner are utricular supporting cells or the colls, for the proliferation of medicament for medicament for medicament for inducing endothelial cell the formation and for the colls of the colls, for the colls of the coll treating various bone and/or cartilage disorders such as sports injuries

> RESULT 194 ADC81211

```
2001US-00796498.
2001WO-US006520
2001WS-00806666.
2001US-00808689.
2001US-0081689.
2001US-0081644.
2001US-00854208.
2001US-00854208.
2001US-00854208.
2001US-00854208.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US030873.
2000WO-US032678.
2000US-00747259.
                                                          99WO-US021090.
                                                                                 99WO-US023089
                                                                                                     99WO-US028313
99WO-US028409
                                                                                                                                                                    99WO-US028565
                                                                                                                                                                                US030095
                                                                                                                                                                                                    99WO-US030999
                                                                                                                                                                                                              99WO-US030720
                                                                                                                                                                                                                        99WO-US031243
                                                                                                                                                                                                                                              2000WO-US000219
                                                                                                                                                                                                                                                                  2000WO-US000376
                                                                                                                                                                                                                                                                                                            2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US017092,
2001US-00872035
                                                                                          99WO-US028214
                                                                                                                           99WO-US028301
                                                                                                                                                                                                                                                                             2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                 2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US017800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00874503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US019692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US020116
                                                                                                                                                                                -0M66
                                                 -0M66
                                                                                                                                                          -0W66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
                                                         -SEP-1999;
-SEP-1999;
-OCT-1999;
-NOV-1999;
                                                                                                                                                                                                                                                      06-JAN-2000;
                                                                                                                                                                   :666
                                                                                                                                                                                                                                             05-JAN-2000;
                                                                                                                                                                                                                                                                            11-FEB-2000;
                                                                                                                                                                                                                                                                                      .8-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-AUG-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-APR-2001;
10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2001;
                                                                                                                                                                                      20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAY-2001;
                                                                                                                                    01-DEC-1999;
02-DEC-1999;
                                                 SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAR-2001
                                                                                                              -NOV-1
                                                                                                     NOV-1
                                                                                                                                              -DEC-1
      and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                 Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; PRA; seletetal muscle cell; adpocyte cell; pericyte cell; cell; endocyte cell; pericyte cell; endothelial cell; bringthe cell; pericyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube farmation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                             9
                                                                                                                                                                                             1 MTFFLSELLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                           MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                       Gaps
                                                                                                                                                        .,
                                                                                                                                 Length 90;
                                                                                                                                                       Indels
                                                                                                                                100.0%; Score 462; DB 8;
100.0%; Pred. No. 9.8e-49;
Live 0; Mismatches 0;
                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                      GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                               ADD76659 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US012456.
98WO-US014552.
98WO-US017888.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US022991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US024855.
98WO-US025108.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US000106.
99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002US-00123912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019177
                                                                                                                                                                                                                                                                                                                                                               Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                         29-JAN-2004 (first entry)
                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -0M86
                                                                                                                                          Local Similarity
les 90; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003100087-A1.
                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-SEP-1998;
07-0CT-1998;
29-0CT-1998;
29-0CT-1998;
20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-MAR-1999;
10-MAR-1999;
20-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-JUL-1998
28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEC-1998
                                                                                                                                                                                                                                                                                                                     ADD76659;
                                                                                                                                                                                                                      61
                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                     ADD76659
                                                                                                                                                                                                                                                                                              8X3233333X8
                                                                                                                                                                                          엄
                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                     셤
```

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for simulating the release of tumour necrosis factor-alpha (TMR-alpha) from human blood, a method for simulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The prolynucleotides are useful in menceular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating arisense RNA and bin gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development and screening of knock-out animals which are useful in the development as tumours, for antibodies are used in preparing a condition responsive to the polypeptides or antibodies such as tumours, for simulating and inhibiting proliferation of thuman microvascular endothelial cells, for modilating the uptake of stimulating differantiation of adipocyte cells, for stimulating differantiation of adipocyte cells, for stimulating and confileration of inner ear utricular such as sports injuries and arthritis. PRO polypeptides which stimulate cells, for rinducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and articular cartilage are useful for treating various ammanian and anothelial for treating various ammanian and anothelial for treating various mammalian and anothelial cell infulassaemias and condition. Note: The sasociated disorders such as various thalassaemias and conditions of sequence tare presents a human PRO polypeptide of the invention of the properties are 
                                                                                                                                                                                                                                                                                                                                                                                                                    New PRO nucleic acid, useful for recombinantly producing a PRO polypeptide and for manufacturing a medicament for diagnosing or treating a tumor.
                                                                                                                                                                                                                                                Beresini M, Deforge L, Desnoyers L, Filvaroff E, G:
16, Goddard A, Godowski FJ, Gurney AL, Sherwood S;
Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 12; Fig 474; 638pp; English.
29-JUN-2001; 2001MO-US021066.

09-JUL-2001; 2001MO-US021735.

18-JUL-2001; 2001US-0090827.

06-AUG-2001; 2001US-00924419.

09-AUG-2001; 2001US-00927796.

16-AUG-2001; 2001US-0021836.

19-DEC-2001; 2001US-0028072.
                                                                                                                                                                                                                                                                          Gerritsen ME, Goddard
Smith V, Stewart TA,
                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                  2004-008956/01.
                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ADD76658
                                                                                                                                                                                                                                                   Baker KP,
```

Sequence 90 AA;

```
09
                                                                                                          09
                                                                                             MTFFLSLILLIVCEAIMRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                     1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                     0; Gaps
100.0%; Score 462; DB 8; Length 90; 100.0%; Pred. No. 9.8e-49;
                                   0; Indels
                                   0; Mismatches
                                 90; Conservative
                Best Local Similarity
Query Match
                                   Matches
                                                                                                        셤
                                                                       ò
```

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90 61

ð

90 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 61

ADD88023 standard; protein; 90 AA. ADD88023 ID ADD8

ADD88023;

29-JAN-2004 (first entry)

Human PRO polypeptide #237.

Gao W;

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; Chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; seeletal muscle cell; adipocyte cell; perioryte cell; perioryte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003092113-A1.

L5-MAY-2003

16-MAY-2002; 2002US-00147523.

09-DEC-1999; 99US-0170262P. 01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Deforge L, Desnoyers L, Filvaroff E, Ga A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, Stewart TA, Baker KP, Ber Gerritsen ME, Smith V,

WPI; 2004-020237/02. N-PSDB; ADD88022.

New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or cancer

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor—alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in cagentating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells. proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans stimulating differentiation of adipocyte cells, for stimulating

```
..
0
             articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO PyPeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalssaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO Polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; inner ear unscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; shorteedlycan; articular cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                                     MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                              1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
cartilage are useful for treating sports-related joint problems,
                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                ..
                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                              Indels
                                                                                                                                                                            100.0%; Score 462; DB 8;
100.0%; Pred. No. 9.8e-49;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                             GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                            GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                           ADD86427 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2000; 2000US-0209832P.
01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-MAY-2002; 2002US-00157798.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                           Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC
                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JS2003203440-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JAN-2004
                                                                                                                                                 Sequence 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADD86427;
                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                            RESULT 197
                                                                                                                                                                                                                                                                                                                                                                                                               ADD86427
8888888888888
                                                                                                                                                                                                                                                                                                            ઠે
```

```
cransmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRC polypeptide, a method for stimulating the release of tumour necrosis. factor—alpha (TMF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for cloth, breast, prostate, rectal, kidney, cervical and liver tumours). The colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polyprolifes are useful in molecular biology, including uses as antisense RNA and DNA and in gene therapy. The polymucleotides may also antisense RNA and DNA and in gene therapy. The polymucleotides and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful anedicament for treating a condition responsive to the polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of or pane expression in periorte cells, for stimulating differentiation of adipocyte cells, for stimulating the uptake of glucose or FRA by skeletal muscle cells or adipocyte cells, for stimulating the proliferation of or gene expression in periorte cells, for stimulating the proliferation of cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteeglycans from cartilage affects, osteoarthitis and rheumacoid arthritis. PRO polypeptides which stimulate the release of proteeglycans from cartilage defects, osteoarthicis and theumacoid arthritis. PRO polypeptides are also useful for treating sports-related joint problems, associated disorders such as various than amazous mammalian haemoglobin-sequence date for this patent is also available in electronic format from sequence date for this patent is also various humaned local immune system cell infiltingence in the proliferation of or gol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNR-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA, skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; theumatoid arthritis; hermaloid arthritis; hermaloi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLILLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTFFLSLLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSOPTOSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 462; DB 8; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USPTO at segdata.uspto.gov/seguence.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKGIVKGRNLDSRGLILGABAWGRGVKKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE75875 standard; protein; 90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             immune system cell infiltration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 100.
1es 90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003211571-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE75875;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

Gao W;

Filvaroff E, (

Deforge L, Desnoyers L, Filvar A, Godowski PJ, Gurney AL, She: Tumas D, Watanabe CK, Wood WI,

Beresini M, De Æ, Goddard A,

Gerritsen ME,

Smith V,

Baker KP,

Stewart TA, 2004-021363/02. N-PSDB; ADD86426. The invention relates to isolated human PRO polypeptides (secreted and

Claim 12; Fig 474; 637pp; English.

New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.

```
Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Ga
Gerritsen MB, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
                           01-DEC-2000; 2000WO-US032678.
19-DEC-2001; 2001US-00028072.
                     03-MAR-2000; 2000US-0187202P.
           20-MAY-2002; 2002US-00152405.
                                                                                                              diabetes, or arthritis.
                                           (GETH ) GENENTECH INC.
                                                                           WPI; 2004-051576/05.
                                                                                   N-PSDB; ADE75874.
```

New secreted and transmembrane PRO polypeptide and nucleic acid encoding it, for use in gene therapy, as diagnostic markers for the presence of a disease condition, or as therapeutic targets for treating tumors,

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated numan rwo polypeputaes (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the relation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as the used in preparing PRO polypeptides by recombinant techniques and in cantisense RNA and pRO polypeptides by recombinant techniques and in the used in preparing PRO polypeptides by recombinant techniques and in colon antisense RNA and some animals or knock-out animals which are usedful in the development and screening of therapeutically useful casquits. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of or gene expression in pericyte cells, for stimulating colliseration of or gene expression in pericyte cells, for stimulating colliseration of or gene expression in pericyte cells, for stimulating colliseration of or gene expression in pericyte cells, for stimulating cells, for rinducing endothelial cells formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problem; articular cartilage are useful for treating sports related joint problem; arcular entals and seconiated and relations and seconiated seconiated and seconiated and seconiated and seconia associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO Polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html. invention relates to isolated human PRO polypeptides (secreted and

Sequence 90 AA;

```
09
                                                                                                                      9
                                                                              1 MTFFLSLLLLLVÇEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                   1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                               0;
       100.0%; Score 462; DB 8; Length 90; 100.0%; Pred. No. 9.8e-49;
                                              0; Indels
                                              0; Mismatches
                                                                                                                                                       61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                              Conservative
Query Match
Best Local Similarity
Matches 90; Conserva
                                                                                                                 셤
                                                                                                                                                       à
```

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

```
Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; hung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; perioyte cell; adipocyte cell; perioyte cell; endothelial cell tube formation; bone disorder; artilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
       ADE23451 standard; protein; 90 AA.
                                                     Human PRO polypeptide #237.
                                      (first entry)
                                      29-JAN-2004
                       ADE23451;
ADE2345
```

.. 3

US2003092108-A1.

15-MAY-2003

24-APR-2002; 2002US-00131835.

01-DEC-2000; 2000WO-US032678. 19-DEC-2001; 2001US-00028072.

(GETH) GENENTECH INC.

Deforge L, Desnoyers L, Filvaroff E, G: A, Godowski PJ, Gurney AL, Sherwood S; Tumas D, Watanabe CK, Wood WI, Zhang Z; Beresini M, ME, Goddard Stewart TA, Baker KP, Ber Gerritsen ME, Smith V,

WPI; 2004-020234/02. N-PSDB; ADE23450 New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or

Claim 12; Fig 474; 637pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNR-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, Kidney, cervical and liver tumours). The polynucleotides are useful in molecular biology, including uses as polynucleotides are useful in molecular biology, including uses as in chromosome and gene mapping, in generating cartisers RNA and DNA and in gene therapy. The polynucleotides may also attisense RNA and DNA and in gene therapy. The polynucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful casgents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting putake of glucose or FFA by skeletal muscle cells for medicament for transfarm of the fermination of human microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for crimilaring and continued to the continued of adipocyte cells, for crimilaring and continued to the continued to proliferation of or gene expression in pericyte cells, for stimulating the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans

```
from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobinassociated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from the USPTO website at segdata.uspto.gov.
```

Sequence 90 AA;

```
·.
                                                                   9
                                                                                    MIFFLSLILLLUVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                 1 MTFFLSLLLLLVCBAIWRSNSGSNTLBNGYFLSRNKENHSQPTQSSLBDSVTPTKAVKTT
                                     0; Gaps
     Length 90;
                                 Indels
                                     .
0
100.0%; Score 462; DB 8;
100.0%; Pred. No. 9.8e-49;
iive 0; Mismatches 0;
                                                                                                                                  90
                                                                                                                                61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT
                                                                                                                                                    61 GKGIVKGRNLDSRGLILGAAAWGRGVKKNT
                                90; Conservative
Query Match
Best Local Similarity
Matches 90; Conserv
                                                                 à
                                                                                                심
                                                                                                                              8
                                                                                                                                                           g
```

ADE24003 standard; protein; 90 AA. Human PRO polypeptide #237. (first entry) 29-JAN-2004 RESULT 200

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adtenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; inner ear unscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports alphury; protecqlycan; articular cartilage defect; ostecarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003092110-A1.

15-MAY-2003

03-MAY-2002; 2002US-00137864.

2000WO-US032678. 2001US-00028072. 03-MAR-2000; 2000US-0187202P. 01-DEC-2000; 19-DEC-2001;

(GETH) GENENTECH INC.

Gao čorge L, Desnoyers L, Filvaroff E, G Godowski PJ, Gurney AL, Sherwood S; мв D, Watanabe СК, Wood WI, Zhang Z; Deforge L, Goddard A, Gouc...
Tumas D, Beresini M, Gerritsen ME, Goddard Smith V, Stewart TA, Baker KP,

WPI; 2004-020235/02. N-PSDB; ADE24002. New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or

Claim 12; Fig 474; 637pp; English

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the polypeptide, a method for stimulating the polypeptide, a method for stimulating the prosence of a tumour in a mammal (e.g. adrenal, lung, colieration or differentiation of chondrocyte cells and a method for proliferation or differentiation of chondrocyte cells and a method for other prosence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, proseate, rectal, kidney, cervical and invertumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping in generating be used in preparing PRO polypeptides by recombinant techniques and in generating proliferation probes, in chromosome and gene mapping, including as in generating gentaric transgenic animals or knock-out animals which are useful in the development and screening or knock-out animals and in generating generating proliferation and screening or engents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of antibodies, such as tumours, for stimulating differentiation of adipocyte cells, for stimulating are useful for treating sports-related joint problems, articular conformation such as sports injuries and relating conformation artilage are useful for treating sports-related joint problems, articular cartilage defects, esceparthitis and rheumatoid arthritis. PRO polypeptides which stimulation are related disorders such as various benefit from enhanced local immune systeme energy of propertions and seculation of adipocyte cells, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the USPTO website at sequata.uspto.gov.
```

Sequence 90 AA;

```
9
                                                                       9
                                                               1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                              I MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                         0;
 Length 90;
                         Indels
 100.0%; Score 462; DB 8; 100.0%; Pred. No. 9.8e-49;
                          ..
                         Mismatches
                                                                                               90
                                                                                                             61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                         .;
0
                         Conservative
           Local Similarity
                         90;
Query Match
                        Matches
                                              ð
                                                                    d
                                                                                             ò
                                                                                                                  g
```

RESULT 20

ADE24646 standard; protein; 90 AA. ADE24646;

29-JAN-2004 (first entry)

Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; Chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; glucose; cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sporte injux; proteogylvan; articular cartilage defect; ostecarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. Human PRO polypeptide #237.

ostecarthritis;

Homo sapiens.

US2003092111-A1

```
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, in generating thy prostating probes, in chromosome and gene mapping, in generating a hybridisation probes, in chromosome and gene mapping, in generating a thysrisense RNA and min gene therapy. The polymucleotides may also a this sense RNA and min gene therapy. The polymucleotides as a set in the development and screening of therapeutically useful are useful in the development and screening of therapeutically useful are useful in the development and screening of therapeutically useful and addicament for treating a condition responsive to the polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of human microvascular endothalal cells, for modulating the uptake of glucose or FPA by skeletal muscle cells, for modulating the uptake of grimulating differantiation of inner ear utricular such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans the proliferation of inner ear utricular such as sports injuries and articular cartilage are useful for treating various memalian and contribine are also useful for treating various ammalian hasmoglobin.

The prostice are useful for treating various mammalian hasmoglobined are also useful for treating various and contitions whence the release of proteoglycans from cartilage are useful for treating various mammalian ha
                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, acquired immunodeficiency syndrome, or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                       secreted and transmembrane nucleic acid useful for treating
                                                                                                                                                                                                                                                          Beresini M, Deforge L, Desnoyers L, ME, Goddard A, Godowski PJ, Gurney AI Stewart TA, Tumas D, Watanabe CK, Woo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 12; Fig 474; 637pp; English.
                                                                                                                03-MAR-2000; 2000US-0187202P.
01-DEC-2000; 2000WO-US03267B.
                                                                                                                                                               19-DEC-2001; 2001US-00028072.
                                                                    03-MAY-2002; 2002US-00137869
                                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                    2004-020236/02.
                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-020236/
N-PSDB; ADE24645.
                                                                                                                                                                                                                                                                                Gerritsen ME,
                        15-MAY-2003.
                                                                                                                                                                                                                                                          Baker KP,
                                                                                                                                                                                                                                                                                                        Smith V,
```

Gaps 0, Length 90; 0; Indels 100.0%; Score 462; DB 8; 100.0%; Pred. No. 9.8e-49; ive 0; Mismatches 0; Best Local Similarity 100. Matches 90, Conservative Query Match

Sequence 90 AA;

MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT

9

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 61

> g ò 셤

GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; hung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration. ADD87471 standard; protein; 90 AA. Human PRO polypeptide #237. (first entry) 29-JAN-2004 ADD87471; ADD87471

3

Filvaroff E,

Gurney AL, Sherwood S; CK, Wood WI, Zhang Z;

US2003203439-A1. 30-OCT-2003

Homo sapiens.

17-MAY-2002; 2002US-00147499.

99WO-US012252. 2000US-00380137. 2000WO-US008439. 2000WO-US032678 30-MAR-2000; 30-MAR-2000; 01-DEC-2000; 04-AUG-1998;

(GETH) GENENTECH INC.

2001US-00028072

19-DEC-2001;

Gao W; Filvaroff E, Gao L, Desnoyers L, Filvar ski PJ, Gurney AL, She Watanabe CK, Wood WI, Deforge L, I A, Godowski I Tumas D, Wati Baker KP, Beresini M, Gerritsen ME, Goddard Gerritsen ME, Goddard Smith V, Stewart TA,

WPI; 2004-021362/02. N-PSDB; ADD87470

in in New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 PRO4978, useful in molecular biology, chromosome and gene mapping, generating antisense RNA and DNA, and in gene therapy.

Claim 12; Fig 474; 648pp; English.

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for atimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the proliferation or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The hybridisation probes, in chromosome and gene mapping, in generating antisense RNA and DNA and in gene therapy. The polymucleotides may also be used in preparing PRO polypeptides by recombinant techniques and in seem in the alpha transgents and in seem the properties and in seem in the polymucleotides may also be used in preparing either transgents and also penerating enter transgents and and so penerating the polymucleotides may also penerating either transgents and and so the polymucleotides which are nearly the polymorphism and in seem in the propagation of the propagation of the polymucleotides and in seem in the polymucleotides may also be used in preparing either transgents and and the propagation and in the polymorphism and in the polymucleotides in the propagation and in the propagation and the propa proliferation useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a medicament for treating a condition responsive to the polypeptides or antibodies, such as tumoure, for stimulating and inhibiting proliferation of human microvascular endothelial cells, for modulating the uptake of glucose or FRA by skeletal muscule cells, for stimulating differentiation of adipocyte cells, for stimulating proliferation of or gene expression in pericyte cells, for stimulating

```
2000WO-US034956.
2001US-00796498.
2001WO-US006520.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00802706.
2001US-00808689.
2001US-00816744.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00828366.
2001US-00854208.
2001US-00854280.
                                                                                                                99WO-US021090.
                              2000WO-US006319
                                          99WO-US008615
                                                     99WO-US010733
                                                                99WO-US012252
                                                                            99WO-US020111
                                                                                                                            99WO-US021547
                                                                                                                                    99WO-US023089
                                                                                                                                                   99WO-US028214
                                                                                                                                                             99WO-US028313
                                                                                                                                                                         99WO-US028409
                                                                                                                                                                                                                    99WO-US028564
99WO-US028565
                                                                                                                                                                                                                                                                              99WO-US030720
                                                                                                                                                                                                                                                                                           99WO-US031243
                                                                                                                                                                                               99WO-US028634
                                                                                                                                                                                                           99WO-US028551
                                                                                                                                                                                                                                            99WO-US030095
                                                                                                                                                                                                                                                     99WO-US030911
                                                                                                                                                                                                                                                                  99WO-US030999
                                                                                                                                                                                                                                                                                                                2000WO-US000219
                                                                                                                                                                                                                                                                                                                                      2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                            2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                         2000WO-US004342
2000WO-US004414
                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US004414
2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005601
2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US013705
2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00866028.
2001US-00866034.
                                                                                                                                                                                    99WO-US028301
                                                                                                                                                                                                                                                                                                                           2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                   2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US030873
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US007377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US022031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US023522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001WO-US006666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00860216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            001US-00872035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          001WO-US017800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00874503
2001US-00882636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00886342
                                                   14-MAY-1999;
02-JUN-1999;
01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
                                                                                                                                                          30-NOV-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-APR-2001;
10-MAY-2001;
                                                                                                                                                                                             01-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                                                                05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                     06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                              .8-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                    FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                             24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L0-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-2000;
20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAY-2001;
                                                                                                                                                                                                                    02-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                     20-DEC-1999;
20-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                            24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-NOV-2000;
                                                                                                               15-SEP-1999
                                                                                                                                    05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                            16-DEC-1999;
                                                                                                                                                                                                                                                                             22-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-JUL-2000;
                                                                                                                           15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-MAY-2000
       the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage discorders such as sports injuries and arthritis. PRO polypeptides which stimulate the release of proteoglycans from cartilage are useful for treating sports-related joint problems, articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence tepresents a human PRO polypeptide of the invention. Note: The USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; PRO; secreted polypeptide; transmembrane polypeptide; trumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FRA; seeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; endothelial cell tube formation; bone disorder; cartilage disorder; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.
                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                           1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                            1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                        0;
                                                                                                                                                                             100.0%; Score 462; DB 8; Length 90; 100.0%; Pred. No. 9.8e-49; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                       GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                      ADE89337 standard; protein; 90 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US017888.
98WO-US018824.
98WO-US019093.
98WO-US019094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US019177.
98WO-US019330.
98WO-US019437.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98WO-US012456.
98WO-US014552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US021141.
98WO-US022991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-APR-2002; 2002US-00124823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US025108
99WO-US000106
                                                                                                                                                                                                                                                                                                                                                                                                                             Human PRO polypeptide #237.
                                                                                                                                                                                                                                                                                                                                                                                                     29-JAN-2004 (first entry)
                                                                                                                                                                  Query Match
Best Local Similarity 100.0
                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003199062-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-JUN-1998;
14-JUL-1998;
10-SEP-1998;
14-SEP-1998;
14-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                               ADE89337;
                                                                                                                                                                                                                                                                                                                                RESULT 203
                                                                                                                                                                                                                                                                                                                                           888888888888888
                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                        g
```

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; acancer; adreama! Jung; colon; breast; prostate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FPA; skeletal muscle cell; adipocyte cell; pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell; endothelial cell tube formation; bone disorder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

ADE18476 standard; protein; 90 AA.

RESULT 204 ADE18476 Human PRO polypeptide #237.

Gao W;

(first entry)

29-JAN-2004

ADE18476;

```
Novel isolated PRO polypeptide useful for treating diabetes, hyper-chypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart attack, various coagulation disorders, tumors.
                                                                                                                    Deforge L, Desnoyers L, Filvaroff E, Ga
A, Godowski PJ, Gurney AL, Sherwood S;
Tumas D, Watanabe CK, Wood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USPTO at segdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                      Claim 12; SEQ ID NO 474; 638pp; English.
                                                     06-AUG-2001; 2001US-00924419.
09-AUG-2001; 2001US-00931836.
16-AUG-2001; 2001US-00931836.
19-DEC-2001; 2001US-00028072.
         2001US-00887879.
2001WO-US020116.
                          2001WO-US021066.
2001WO-US021735.
2001US-00908827.
                                                                                                                    Baker KP, Beresini M, Del
Gerritsen ME, Goddard A,
Smith V, Stewart TA, Tum?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90; Conservative
                                                                                                   (GETH ) GENENTECH INC.
                                                                                                                                                        2004-041360/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 90; Conserv
                                                                                                                                                                   N-PSDB; ADE89336.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 90 AA;
20-JUN-2001; 2
21-JUN-2001; 2
22-JUN-2001; 2
29-JUN-2001; 2
09-JUL-2001; 2
```

```
98WO-US024855.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                   17-APR-2002; 2002US-00125805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US019094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US025108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US018824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US019093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US019177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US019330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-US019437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US022991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US022992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US008615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20594.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US020944.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US021547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028565.
99WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US021090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US023089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US028214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US028409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US028301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US030720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US031243
                                                                                                                                                                                                                                                                                                                                                             US2003194794-A1.
                                                                                                                                                                                                                                                                                                                                                                                                 16-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-DEC-1999,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LO-MAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-NOV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-NOV
The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, corpileration or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as thy print probaring PRO polypeptides by recombinant bechniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful cueful in the development and screening of therapeutically useful accorpinate in the development and screening of therapeutically useful transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful cueful in the development and screening of therapeutically useful colons as tumours, for stimulating of the polypeptides or antibodies are useful properties or antibodies are useful ecals, for stimulating differantiation of adipocyte cells, for stimulating differantiation of adipocyte cells, for stimulating differantiation of adipocyte cells, for stimulating expoliferation of or gene expression in pericyte cells, for stimulating expoliferation of inner ear utricular supporting eals or T-lymphocyte cells, for inducing endeful mascle cells of community exposing for arthritis. PRO polypeptides which stimulate the release of proteoglycan cartilage are useful for treating sports-related joint home associated disorders such as sports injuries and conditions are also useful for treating sports-related joint home associated disorders such as various benefit from enthanced local immunes system ce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MIFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTFFLSLLLLLVCEALWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 462; DB 8; 100.0%; Pred. No. 9.8e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
```

셤 ð

```
2001MO-US006666.
2001US-00808689.
2001US-00810889.
2001US-008144.
2001US-00854208.
2001US-00854208.
2001US-00854280.
2001US-00854280.
                                                                                                                                                                                                  1001US-00796498.
                                                                  2000WO-US005746
2000WO-US005841
                                                                                                                                                  2000WO-US023522.
2000WO-US023328.
                                                                                                                                                                2000WO-US030952.
2000WO-US030873.
                                                                                                                                                                              1000WO-US032678.
                   2000WO-US003565
2000WO-US004341
                                                                                                                                                                                           000WO-US034956
                                                      0000WO-US005004
                                                             000WO-US005601
                                                                                2000WO-US006884
                                                                                                            2000WO-US013705
                                                                                                                  2000WO-US014042
                                                                                                                         000WO-US014941
                                                                                                                                             0000WO-US022031
                                                                                                                                                                                                                                                                            2001US-00866034.
2001WO-US017092.
                                                                                                                                                                                                                                                                                                             2001US-008B2636
                                                                                                                                                                                                                                                                                                                    2001US-00886342
                                                                                                                                                                                                                                                                                                                           2001WO-US019692
                                                                                                                                                                                                                                                                                                                                 2001US-00887879
                                                                                                                                                                                                                                                                                                                                       2001WO-US020116
                                                                                                                                                                                                                                                                                                                                               2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                       2001US-00028072
                         18-FEB-2000;
18-FEB-2000;
22-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                           25-MAY-2001;
25-MAY-2001;
01-JUN-2001;
                                                     24-FEB-2000;
01-MAR-2000;
                                                                                                                                                                              01-DEC-2000;
20-DEC-2000;
                                                                                                                                                                                                  28-FEB-2001;
                                                                                                                                                                                                                     09-MAR-2001;
14-MAR-2001;
                                                                                                                                02-JUN-2000;
                                                                                                                                                   23-AUG-2000;
                                                                                                                                                        24-AUG-2000;
08-NOV-2000;
                                                                                                                                                                                                        28-FEB-2001;
                                                                                                                                                                                                                                                 10-MAY-2001;
                                                                                                                                                                                                                01-MAR-2001;
                                                                                                                                                                                                                                   22-MAR-2001;
                                                                                                                                                                                                                                           05-APR-2001;
                                                                                                                                                                                                                                                                                                     05-JUN-2001;
                                                                                                                                                                       10-NOV-2000;
                                                                                                                                                                                           20-DEC-2000;
                                                                                                                                                                                                                                                                     25-MAY-2001;
                                                                                                                                                                                                                                                                                                                         20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                 21-JUN-2001;
                                                                                                                                                                                                                                                                                                                                      22-JUN-2001;
                                                                                                                                                                                                                                                                                                                                               29-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                   JUL-2001;
                                                                        02-MAR-2000
                                                                                                                                            11-AUG-2000;
                                                                                                                        30-MAY-2000
```

(GETH) GENENTECH INC.

X, forge L, Desnoyers L, Filvaroff E, G. Godowski PJ, Gurney AL, Sherwood S; as D, Watanabe CK, Wood WI, Zhang Z; Deforge L, ME, Goddard A, Godow Stewart TA, Tumas D, Beresini M, Baker KP, Gerritsen Smith V,

2004-021079/02. N-PSDB; ADE18475 New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or PRO4978, for use in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.

Claim 12; SEQ ID NO 474; 638pp; English.

```
transmembrane polypeptides (secreted and transmembrane polypeptides) and the polyvucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TWF-alpha) from human blood, a method for stimulating the presence of a tumour in a mammal (e.g. adrenal, lung, detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymolectides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating of the used in preparing PRO polypeptides by recombinant techniques and in generating either transgenic animals which are generating either transgenic animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing and edvelopment and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing and incompanies or the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of glucose or FRA by skeletal muscle cells, for modulating the uptake of simulating differentiation of adipocyte cells, for stimulating differentiation of adipocyte cells, for stimulating cells or T-lymphocyte cells, for inducing endothelial cell tube formation and for treating various bone and/or cartilage disorders such as sports injuries and transmed and contraction of anticular articular cartilage are useful for treating various mammalian manded disorders who as various thalassaemias and conditions which may benefit from enhanced local immune system cell infiltration. This sequence data for this patent is also available in electronic format from cynthese patent in also available in electronic format from Syrphore carticular and contractions of sequence data for this pat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
     isolated human PRO polypeptides (secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MIFFLSLILLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٠,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 462; DB 8;
100.0%; Pred. No. 9.8e-49;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; F1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 90: Conserm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
```

61 GKGIVKGRNLDSRGLILGABAWGRGVKKNT 90 ADE88785 standard; protein; 90 AA RESULT 205 ADE88785 g

Human PRO polypeptide #237. (first entry) 29-JAN-2004

ADE88785;

Human; PRO; secreted polypeptide; transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour; cancer; adrenal; hung; colon; breast; prosteate; rectum; kidney; cervix; liver; microvascular endothelial cell; glucose; FFA; skeletal muscle cell; adipocyte cell; perioyte cell; skeletal muscle cell; adipocyte cell; perioyte cell; endothelial cell tube formation; bone disoxder; cartilage disorder; sports injury; proteoglycan; articular cartilage defect; osteoarthritis; rheumatoid arthritis; haemoglobin-associated disorder thalassaemia; immune system cell infiltration.

Homo sapiens.

US2003199054-Al

```
98WO-US019093
                                                                                                                                                                                                                                                                                                    0095
                    12-APR-2002; 2002US-00121054
                                                                                            98WO-US019330
                                                                                                    98WO-US019437
                                                                                                                   98WO-US022991
                                                                                                                         98WO-US022992
                                                                                                                                 98WO-US024855
                                                                                                                                        98WO-US025108
                                                                                                                                              90T000SU-0M66
                                                                                                                                                            99WO-US005190
                                                                                                                                                                   2000WO-US006319
                                                                                                                                                                            99WO-US008615
                                                                                                                                                                                  99WO-US010733
99WO-US012252
                                                                                                                                                                                                99WO-US020111
                                                                                                                                                                                                        99WO-US020594
                                                                                                                                                                                                                      99WO-US021090
                                                                                                                                                                                                                              99WO-US021547
                                                                                                                                                                                                                                           99WO-US028214
                                                                                                                                                                                                                                                           8409
                                                                                                                                                                                                                                                                                             99WO-US028565
                                                                                                                                                                                                                                                                                                                   99WO-US030999
                                                                                                                                                                                                                                                                                                                               99WO-US031243
99WO-US031274
                                                                                                                                                                                                                                                                                                                                                      2000WO-US000277
                                                                                                                                                                                                                                                                                                                                                             2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                    2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US005746
                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US006884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US004914
                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US005601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US030873
                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US004414
                                                                                                                                                                                                                                                  99WO-US02
                                                                                                                                                                                                                                                         99WO-US02
                                                                                                                                                                                                                                                                        99WO-US02
                                                                                                                                                                                                                                                                                99WO-US02
                                                                                                                                                                                                                                                                                                                          99WO-US03
                                                                                                                                                                                                                                    99WO-US02
                                                                                                                                                                                                                                                                 99WO-US02
                                                                                                                                                                                                                                                                                      SU-OW66
                                                                                                                                                                                                                                                                                                    SU-OM66
                                                                                                                                                                                                                                                                                                           SU-OW66
                                                        28-AUG-1998;
10-SEP-1998;
14-SEP-1998;
                                                                                                                        29-OCT-1998;
20-NOV-1998;
01-DEC-1998;
                                                                                                                                             05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
                                                                                                                                                                                                01-SEP-1999;
08-SEP-1999;
13-SEP-1999;
                                                                                                                                                                                                                    15-SEP-1999;
15-SEP-1999;
05-OCT-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                        22-DEC-1999;
30-DEC-1999;
30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-NOV-2000;
10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                            06-JAN-2000;
                                                                                                                                                                                 14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                     06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                   11-FEB-2000;
       23-OCT-2003
                                                                             14-SEP-1998
14-SEP-1998
                                                                                            16-SEP-1998
                                                                                                    17-SEP-1998
                                                                                                          07-0CT-1998
29-0CT-1998
                                                                                                                                                                   10-MAR-1999
                                                                                                                                                                            20-APR-1999
                                                                                                                                                                                          02-JUN-1999
                                                                                                                                                                                                                                                  30-NOV-1999
                                                                                                                                                                                                                                                                       01-DEC-1999
                                                                                                                                                                                                                                                                                                                 20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                       24-FEB-2000
01-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                 24-FEB-2000
                                                                                                                                                                                                                                                         30-NOV-1
01-DEC-1
```

2001WO-US006666. 2001WO-US006666. 2001US-00802706. 2001US-00808689. 2001US-0081844. 2001US-00854208. 2001US-00866028. 2001US-00866034. 2001WO-US017092. 2001US-00872035. 2001WO-US017800. 2001US-00854280. 2001US-00860216. 2001US-00796498 001US-00882636 001US-00886342 2001WO-US019692 2001US-00887879 001WO-US020116 001WO-US021735 001US-00874503 001US-00908827 2001US-00931836 01-DEC-2000; 20-DEC-2000; 20-DEC-2000; 20-DEC-2000; 28-FEB-2001; 28-FEB-2001; 01-MAR-2001; 09-MAR-2001; 25-MAY-2001; 21-JUN-2001; 25-MAY-2001

Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, G Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S; Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;

(GETH) GENENTECH INC.

3 Gao

WPI; 2004-041356/04. N-PSDB; ADE88784.

Novel secreted and transmembrane polypeptides, PRO useful for treating bone disorders, arthritis, heart attack, injuries, tumors, and stimulating release of TNF-alpha from human blood.

Claim 12; SEQ ID NO 474; 638pp; English

The invention relates to isolated human PRO polypeptides (secreted and transmembrane polypeptides) and the polymucleotides encoding them. The invention also relates to an antibody which specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor-alpha (TNF-alpha) from human blood, a method for stimulating the polymucleotide and invention or differentiation of chondrocyte cells and a method for detecting the presence of a tumour in a mammal (e.g. adrenal, lung, colon, breast, prostate, rectal, kidney, cervical and liver tumours). The polymucleotides are useful in molecular biology, including uses as hybridisation probes, in chromosome and gene mapping, in generating a nitisense RNA and polypeptides by recombinant techniques and in antisense RNA and polypeptides by recombinant techniques and in generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful reagents. The PRO polypeptides or antibodies are used in preparing a condition responsive to the polypeptides or antibodies, such as tumours, for stimulating and inhibiting proliferation of thuman microvascular endothelial cells, for modulating the uptake of stimulating differentiation of adipocyte cells, for stimulating cells or gene expression in pericyte cells, for stimulating cells or gene expression in pericyte cells, for stimulating cells and confider and propertiage disorders such as sports injuries and cells, for inducing endochellal cell tube formation and for treating cells, for arthritis and cells, for induchellal cells, for stimulating differentiation of the proliferation of inner ear utricular supporting cells or T-lymphocyte cells, for inducing endochellal cell tube formation and for treating cells, for stimulating differentiation of singe expression in pericyte cells, for scimulating differentiation of singe of stimulating differentiation of singe expression in pericyte cells, cor stimulating differentiation of singe expression of su

```
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
                                                                                                               18-AUG-2000;
22-AUG-2000;
22-AUG-2000;
                                                                                                                                                              23-AUG-2000;
30-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-SEP-2000;
29-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                              05-SEP-2000;
06-SEP-2000;
                                                                                                                                                                                                                                                                                            08-SEP-2000;
                                                                                                                                                                                                                                  05-SEP-2000;
                                                                                                                                                   22-AUG-2000;
                                                                                                                                                                                                                                                                    06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                             14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                  14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                               14-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-SEP-2000;
         ö
articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO polypeptides are also useful for treating various mammalian haemoglobin-associated disorders such as various thalassaemias and conditions which may benefit from enhanced local immune system call infiltration. This sequence represents a human PRO polypeptide of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                 1 MTFFLSLLLLLVCEAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKTT 60
                                                                                                                                                                                 Human; secreted extracellular matrix protein; immunomodulatory; Anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                   antianemic; antirhemmatic; antisclerotic; cardiant; vascular; cerebroprotective; thrombolytic; antimicrobial; ophthalmic; cytostatic; antialzheimers; immune/autoimmune disease; HIV infection; anaemia; human immunodeficiency virus; rheumatoid arthritis; multiple sclerosis; scancers; hyperproliferative disorder; breast neoplasm; melanoma; scarcy syndrome; Gauchers disease; neurological diseases; Alzheimer's disease; Parkinson's disease; cardiovascular disorder; cardiac arrest; tachycardia; angina; infection; corneal infections; wound healing; immunogen; gene therapy; antisense; food additive.
                                                                                                                                                 Gaps
                                                                                                                                                 .
.
                                                                                                                    100.0%; Score 462; DB 8; Length 90; 100.0%; Pred. No. 9.8e-49; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                  Human novel extracellular matrix protein, Seq ID No 488.
                                                                                                                                                                                                                   90
                                                                                                                                                                                                                              61 GKGIVKGRNLDSRGLILGAEAWGRGVKKNT
                                                                                                                                                                                                                                                                                               AAU19838 standard; protein; 222 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1-CATA-2000; 2000US-018062BP.
24-FEB-2000; 2000US-018063EP.
24-FEB-2000; 2000US-018635DP.
16-MAR-2000; 2000US-018635DP.
17-MAR-2000; 2000US-0189874P.
17-MAR-2000; 2000US-0198123P.
19-MAY-2000; 2000US-0209467P.
19-MAY-2000; 2000US-0209467P.
10-JUN-2000; 2000US-021513FP.
10-JUN-2000; 2000US-021513FP.
11-JUL-2000; 2000US-0214886P.
11-JUL-2000; 2000US-021488PP.
14-JUL-2000; 2000US-0229964P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JAN-2001; 2001WO-US001348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-AUG-2000; 2000US-0224519P.
                                                                                                                 Query Match
Best Local Similarity 100.
Matches 90; Conservative
                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                              Sequence 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200155368-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-JAN-2000;
                                                                                                                                                                                                                                                                                                                                             04-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-AUG-2001.
                                                                                                                                                                                                                                                                                                                      AAU19838;
                                                                                                                                                                                                                                                                                   AAU19838
                                                                                                                                                                                                                                                                                              8888888888888
                                                                                                                                                                 ò
                                                                                                                                                                                      셤
                                                                                                                                                                                                              ð
```

```
2000US-0225270P.
2000US-0225447P.
2000US-0225757P.
2000US-0225758P.
2000US-0225759P.
                                                                                                                     2000US-02266BIP.
2000US-0226BBP.
2000US-0227B2P.
2000US-022924P.
2000US-0229343P.
2000US-0229344P.
2000US-0229344P.
2000US-0229344P.
2000US-0229344P.
                                                                                                                                                                                                                                                                                                                                                 2000US-0231242P.
2000US-0231243P.
2000US-0231244P.
2000US-0231413P.
                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0231414P.
2000US-0232080P.
2000US-0232081P.
2000US-0231968P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0232397P

2000US-0232398P

2000US-0232401P

2000US-0232411P

2000US-0233064P

2000US-0233064P

2000US-0233064P

2000US-0234297P

2000US-0235884P

2000US-0235887P

2000US-0235887P

2000US-0235887P

2000US-0235887P

2000US-0235887P

2000US-0235887P

2000US-023688P

2000US-023688P
2000US-0225268P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0237039P.
2000US-0237040P.
2000US-0239935P.
2000US-0239937P.
                                                                                                                                                                                                                                                                                                             2000US-0230437P.
                                                                                                                                                                                                                                                                                                2000US-0229513P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          000US-0240960P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0241786P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0241787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0241808P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0241826P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0246474P
```

us-09-989-293a-377.junl.rag

```
08-NOV-2000; 2000US-0246524P.
08-NOV-2000; 2000US-0246525P.
08-NOV-2000; 2000US-0246527P.
08-NOV-2000; 2000US-0246527P.
08-NOV-2000; 2000US-0246523P.
08-NOV-2000; 2000US-0246610P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0249208P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249218P.
17-NOV-2000; 2000US-024928P.
17-NOV-2000; 2000US-024928P.
17-NOV-2000; 2000US-024928P.
17-NOV-2000; 2000US-024928P.
17-NOV-2000; 2000US-025198P.
05-DEC-2000; 2000US-025198P.
05-DEC-2000; 2000US-025198P.
06-DEC-2000; 2000US-025198P.
08-DEC-2000; 2000US-025198P.
```

(HUMA-) HUMAN GENOME SCI INC.

Barash SC, Ruben SM; Rosen CA,

N-PSDB; AAS31409

WPI; 2001-465572/50.

Nucleic acid molecules encoding human secreted extracellular matrix proteins, used in preventing, treating or ameliorating a disorder, e.g. Alzheimer's and Parkinson's diseases and cancers.

Claim 11; SEQ ID NO 488; 577pp; English.

The invention relates to isolated nucleic acid molecules encoding novel human secreted extracellular matrix proteins (SPS). The polymucheotides and proteins are used to prevent, treat a medical condition in e.g. thumans, mice, rabbits, goats, horses, cats, dogs, chickens or sheep. For example, disorders associated with decreased expression of SPS. The SP colymnoleotide or a vector expressing them may be administered to treat diseases by gene therapy. Antisense molecules may be administered to down colleges by gene therapy. Antisense molecules may also be used as DNA probes in diagnostic assays. The SPS may also be used as DNA probes in diagnostic assays. The SPS may also be used as DNA probes and to identify modulators (agonists and antigonists) of the SPS. The anti-(SP) antibodies and antagonists may also be used to detecting the presence of SPS in samples. The disorders include for collecting the presence of SPS in samples. The disorders include for example: immune/autoimmune diseases (e.g. HIV) (human immunodeficiency virus) infections, anaemia, rheumatoid arthritis and multiple sclerosis), cancers and hyperproliferative disorders (e.g. melanomas, neoplasms of

the breast or liver, Sezary syndrome and Gaucher's disease), neurological diseases (e.g. Alzheimer's disease, Parkinson's disease) cardio-/cerebrovascular disorders (e.g. cardiac arrest, tachycardia and angina), infections caused by bacteria, viruses and fungi and ocular disorders (e.g. corneal infections). Other uses include wound healing, maintenance of organs before transplantation, support of cell culture of primary 8888888

5; Gaps Length 222; 3; Indels DB 4; 53.6%; Score 247.5; DB 4 80.6%; Pred. No. 8.5e-22; live 4; Mismatches 3 Query Match Best Local Similarity 80.67 Matches 50, Conservative

| | ::|:: 83 LCLVILUIAVVLGTWAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKT 142 5 LSLLLLLVC----EAIWRSNSGSNTLENGYFLSRNKENHSQPTQSSLEDSVTPTKAVKT

59

60 TG 61 à

g

143 TG 144

completed: June 1, 2004, 08:21:03 Search completed: Coop time: 62 secs